THE NEW INTERNATIONAL Year Book

A COMPENDIUM OF
THE WORLD'S PROGRESS
FOR THE YEAR
1946

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FOREWORD

The first full year of peace, as reported in this issue of THE NEW INTERNATIONAL YEAR BOOK, found the nations of the world trying to clean house, getting rid of the dust and debris accumulated through the previous six years, cleaning and renovating the furnishings, and trying to restore a regulated existence. By the end of 1946, however, the task was far from completed. Few of the many rooms of the house were wholly in order, if any were, and some of them seemed to show no net improvement, blowing up into fresh disorder at every sweep of the broom. The new cleaning agency, the United Nations, though it contrived to keep disorders from spreading during the year, was found to have so many faults in its mechanism that there was some fear lest it might break down completely.

In the United States, though everything seemed favorable for a speedy restoration to a peacetime economy, latent troubles, very like moths developing on the underside of a carpet, appeared in such numbers that many were far from subdued by the year's end. Strikes, and yet more strikes. Strikes of labor against management; strikes of capital against taxation; strikes of consumer against bureaucracy. Hence, despite an unprecedented demand for consumer goods, production was far from reaching the levels of previous peacetime years. Many of the restrictions imposed upon both producer and consumer as war measures were lifted during the year, but labor still chafed against management, and capital, fearing that the spiral of rising wages and prices of goods had not halted, was hesitant about investing new money into the financing of business expansion.

Other countries also found that the cessation of warfare did not automatically solve all difficulties. The Labor government of Great Britain found that deeply rooted habits, whether evil or not, would have to be broken before all of its socialistic reforms could be effected. Russia licked her wounds behind an "iron curtain" of secrecy. Spain, the black sheep among nations, faced ostracism but clung to her dictatorship. Other countries of Europe, notably Greece, Holland, and Germany, struggled against starvation. Civil war continued to beset China, despite all efforts by outside mediation to arbitrate differences. And elsewhere in Asia, hotbeds of insurrection flourished in India, Indo-China, and in the East Indies especially. In South America, Argentina remained, as previously, a "problem child," stubbornly resisting outside interference in the conduct of her affairs, and Bolivia underwent a violent revolution.

Regardless of economic and political disturbances, however, the everyday activities of the world continued to roll along. Grain, crops, and livestock were raised; coal was mined; airplanes, automobiles, trains, and ships carried passengers to and fro; entertainment by radio, theater, and motion picture was newly provided; books, magazines, and newspapers throughout the world were published. Sports, somewhat subdued during the war years, again proved of absorbing interest to increasing multitudes. Universities and colleges, particularly in the United States where young veterans of the war were offered tuition at government expense, flourished as never before.

The editors of this YEAR BOOK have brought together the outstanding authorities to review in these pages, not only what we have called the everyday activities of the world, but the political and economic activities as well. Many of these authorities have contributed to previous issues and need no introduction to our readers. Of those who are new, some have been introduced because of the unusual nature of their reports. Thus, Mr. James Rowe, Jr., former Assistant Attorney General, gives an eyewitness account of the Nuremberg Trials, at which he served as technical adviser; Lt. Comdr. W. Jerome Hagerty describes the tests of the atomic bomb at Bikini, and, jointly with Dr. Laurence A. Hawkins, Mr. Harry A.

Winne, vice-president of the General Electric Company, discusses the possibilities of controlled atomic energy as a source of power. Also of world importance was the peace conference at Paris, reported by Dr. John H. E. Fried.

Other new contributors to this issue of the YEAR BOOK are welcomed by the editors and will be noted by the readers of these pages. Among them we are proud to present Mr. George W. Mason, president of the Automobile Manufacturers Association, who has reviewed MOTOR VEHICLES during 1946; Dr. Lin Mousheng who reports on UNITED NATIONS; Mr. L. Welch Pogue, Chairman of the Civil Aeronautics Board, who discusses AERONAUTICS; Mr. H. Gerrish Smith, on SHIPBUILDING; Mr. Frank J. Taylor, president of the American Merchant Marine Institute, on SHIPPING; Vice Admiral Edward L. Cochrane, on SHIPPING AND SHIPBUILDING, U.S. NAVY; Mr. Terry Ramsaye, noted author and critic, who has reviewed MOTION PICTURES; Dr. Lawrence Reddick who presents an unusually straightforward report on NEGROES, and Mr. Bernard G. Richards who has written a similar report on JEWS AND JUDAISM; Dr. Vladimir F. Shishmarev who cabled his 1946 review of SOVIET LITERATURE from Moscow; Mrs. Judith Kaye Reed, on ART; Mr. Vernon Rice, of the *N.Y. Post*, on THEATER; Lt. General George E. Stratemeyer, on ARMY AIR FORCES; Miss Mary H. Swindler, on ARCHAEOLOGY; Mr. Conrad Taeuber, on SOCIOLOGY; Mr. Niles Trammell, president of the National Broadcasting Company, who presents RADIO BROADCASTING in 1946, Mr. J. R. Van Arsdale, on ADVERTISING, Miss Evelyn B. McCune, on KOREAN LITERATURE, and Dr. John Gillin, on ANTHROPOLOGY.

Among the outstanding regular contributions, attention should be called specifically to those of several authors upon whom heavy loads have been placed. These include the business and financial articles by Dr. Jules I. Bogen, the numerous articles upon the British Empire by Prof. Alzada Comstock, those upon the Balkan countries by Dr. Moses Hadas, the items upon the many sports by Mr. Thomas V. Haney, the articles upon the countries of northern Europe by Mr. Joachim Joesten, those upon minerals by Mr. Charles T. Post, those upon Russia and the countries of central and southern Europe by Prof. Frederick L. Schuman, and those of the countries of Africa by Prof. Robert Gale Woolbert. (It should be noted that Dr. Hadas, Prof. Schuman, and Mr. Joesten are not responsible for the paragraphs on statistics in the articles over their names.) The countries of South and Central America and those of the Far East were handled this year by a member of the staff, Mr. Joseph P. Blank, who also supplied many of the smaller, but essential, items of information that add to the value of this work.

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GLOSSARY

OF IMPORTANT NEW WORDS AND WORDS IN THE NEWS

Compiled by HAROLD WARD

americium. A new radioactive element of atomic number 95, produced from uranium and plutonium by bombardment with helium ions in the course of research on atomic bombs. Its discovery was announced by Dr. Glenn T. Seaborg on November 16, 1945.

anthallan. A synthetic coal-tar drug claimed to be effective in the treatment of hay fever; developed by Dr. W. S. Loewe, a German-American pharmacologist.

aralen. An antimalarial drug first developed in Germany and tested in the United States; it is reported as superior to atabrine and quinine.

artiscope. A device combining a stereoscope and drawing board, developed as a means of assisting handicapped veterans of World War II in learning how to draw from three-dimensional images serving as models.

astatine. The chemical element of atomic number 85, artificially produced in 1940 in the 60-inch cyclotron at the University of California by bombarding bismuth with alpha-particles. It is related to the group of halogens and was formerly known as alabamine. The symbol is At.

astrobotanics. The investigation of plant life on other planets, especially on Mars, as conducted by scientists in the U.S.S.R.

atomsite. Rock material fused into hard, greenish, crystalline lumps by the heat of an atomic bomb; first noted following the explosion of the test atomic bomb dropped from a tower on the Alamogordo Air Base, New Mexico, July 16, 1945.

azlon. Generic name for synthetic textile fibers made from a protein base, as casein, etc.

baby lung. A resuscitating device for supplying oxygen in the emergency treatment of infantile paralysis and in other cases of impaired lung action and anoxia; useful as a temporary substitute for an iron lung.

bat. A winged aerial bomb guided to the target by radar control; used by the U.S. Navy against Japanese shipping during World War II.

colistatin. An antibiotic isolated in the U.S.S.R. from a bacillus (*Bacillus coli*) found in black earth and thought to be effective in arresting the growth of certain disease germs, as those of pneumonia and dysentery.

contrails. (1) The delicate vapor trails which sometimes stream out in the wake of an airplane flying at high altitudes, caused by condensation of moisture from exhaust gases of the engine. (2) The complicated evolutions of an airplane in a fight (dog-fight) with an enemy airplane.

curium. A new radioactive element of atomic number 96, produced, with americium, by the bombardment of uranium and plutonium with helium ions during research on atomic bombs. Its discovery was announced by Dr. Glenn T. Seaborg on November 16, 1945.

decca. A British system of radio aid to navigation similar to loran in requiring a network of shore stations for transmission of signals.

dineutron. A hypothetical atomic particle resembling the neutron but with double its mass, assumed to result from the action of double-weight hydrogen (deuterium) upon triple-weight hydrogen (tritium). Suggested by two American physicists, M. Y. Colby and R. N. Little, Jr.

Donovan body. A micro-organism believed to be responsible for causing certain forms of arthritis, as well as a rare type of venereal disease affecting the entire body.

electropult. An electrified runway for launching airplanes at high speed and within relatively short distances. It consists of a rotor laid down as a track and a stator installed in the car on which the airplane is carried until adequate lift power is generated.

elevon. A combined aileron and elevator, as used in the flying-wing airplane and certain types of jet-propelled airplanes.

enterogastrone. A hormone-like substance from the mucous lining of the intestine and having the power to counteract the acidic action of the gastric juices.

erythrin. A substance isolated from the red blood cells of rabbits by a Soviet scientist and under investigation as an antibiotic against certain disease germs, especially those causing diphtheria.

eumycin. A substance regarded as a promising antibiotic against diphtheria and tuberculosis bacteria and the fungus causing athlete's foot.

fluorocarbon. Any hydrocarbon compound in which the hydrogen has been replaced by fluorine.

guyot. Any of a type of submarine mountains usually having a flat central depression surrounded by a gently sloping marginal shelf which terminates in an abrupt fall to the ocean floor. Many are from 10,000 to 15,000 feet in height, but all are submerged beneath the ocean. Discovered in certain parts of the Pacific and described by the American physiographer H. H. Hess, who named them after A. H. Guyot, a Swiss geographer.

hydro-bomb. An aerial torpedo which, on striking water, descends to a given depth and is propelled by jets of gas expelled from the rear as in a rocket.

icaroscope. An instrument resembling the telescope but designed for viewing the sun clearly and without dazzle by filtering the light through two rapidly revolving disk shutters interposed between a phosphor screen from whose surface it is transmitted to the eye as a continuous afterglow.

ichthiamin. A substance isolated from raw fish and clams which appears to inhibit the action of thiamin, converting it into a compound lacking vitamin value.

inhibine. A body chemical formed by the action of harmless green streptococci in human saliva and believed to be effective in preventing the growth of certain disease germs.

Koha. A photosensitive chemical developed by the Japanese from neocyanine, a dye substance; under the name *rainbow wave drug* it has been re-

ported as effective in the healing of wounds and in stimulating the growth of new tissues in diseased areas of the body.

KR method. A method for the treatment of cancer by infecting the patient with certain bacterial toxins, as from trypanosomes, which are thought to be active in the destruction of cancerous growths. Developed by and named after Nina Klyeva and her husband, G. Roskin, cancer specialists of the U.S.S.R.

Lewis. An agglutinin believed to constitute a new blood type inherited as a Mendelian dominant: named after Mrs. H. D. G. Lewis, one of the women in whose blood it was first detected by British scientific workers.

mesantoin. A synthetic drug chemically related to dilantin, which it resembles in its ability to moderate the convulsions of grand mal epilepsy.

metascope. An optical instrument for seeing in the dark by means of a system of lenses, spherical mirrors and phosphor screens for the collecting of infra-red light. Developed for the use of American armed forces in World War II.

methoxone. A chemical weed-killer first developed in England and found very effective against weeds infecting grain fields.

metopryl. A powerful general anesthetic of the methyl ether type, reported as less irritating than ether and conducive to great muscular relaxation for long periods.

microbalancer. A sensitive electronic device for detecting imperfect balance in rotating elements of machinery.

myosmine. An alkaloid found in and isolated from tobacco smoke: now produced synthetically and used to improve the smoking qualities of tobacco.

napalm. A substance developed in the United States to increase the incendiary effect of flame throwers; now converted to use as a liquid soap.

neptunium. A highly unstable radioactive element of atomic number 93, artificially produced by neutron bombardment of the nucleus of the uranium atom; of importance in the development of atomic (nuclear) energy.

numeroscope. A high-speed calculating device in which beams of electrons trace numbers on the surfaces of a battery of cathode-ray tubes. Designed by Harrison W. Fuller, of the Harvard Computation Laboratory, to facilitate the use of the more complex electronic calculators by recording the numerical results of the different stages of a given operation.

nutrient X. A food factor of undetermined composition discovered in a large variety of foods, especially in liver extract, egg yolk, and lettuce, and thought to be essential in giving palatability.

orbit. To make circles around a given point or location; said especially of airplanes while flying above the same ground area during the expected approach of enemy aircraft or to receive instructions.

paraseed. A plant seed which is carried for long distances by air and wind, as the seeds of dandelions, milkweed, thistles, etc.

pentaquine. A synthetic drug used with quinine in the treatment of malaria.

permafrost. That part of the earth's surface in Alaska and elsewhere in arctic regions which is permanently frozen.

plutonium. An unstable radioactive element of atomic number 94, produced from uranium by nuclear absorption of neutrons; developed during research on atomic bombs and an important source of atomic (nuclear) energy.

proteinogen. A complex nitrogenous substance assumed to be the basis of all proteins elaborated in plant and animal organisms.

sferics. Those atmospheric conditions due to electromagnetic disturbances, as from lightning, thunderstorms, etc., especially as they affect weather and radio transmission.

sodar. A device for obtaining information on local weather conditions by projecting sound waves directly overhead and analyzing the echoes as recorded on an oscilloscope. The name is a contraction of *so*und *d*etecting *a*nd *r*anging.

stereofluoroscope. A fluoroscope designed to give a three-dimensional image.

synchrotron. An atom-smashing machine combining features of the cyclotron and betatron but utilizing a new principle which permits synchronizing the acceleration of atomic particles to speeds yielding energies of 300-million volts or more.

technetium. The chemical element of atomic number 43, artificially produced in 1937 by the bombardment of molybdenum with neutrons or deuterons in the 37-inch cyclotron at the University of California. Formerly known as masurium. The symbol is Tc.

teleran. A system of air navigation which combines the principles of television and radar in gathering all relevant information by ground stations, whence it is transmitted to all aircraft within range, for instantaneous reproduction on television screens.

thenardol. A liquid antiseptic based on, but more stable and effective than, hydrogen peroxide; it is used for treating wounds and certain infections of the eye, ear, nose, throat, and skin. Named after Jacques Thénard, French chemist, who discovered hydrogen peroxide.

thermistor. A device for measuring blood temperature by direct contact with the blood stream. It consists of a minute heat element thrust into a hollow needle and connected with wires which transmit changes in electrical resistance that can be read off in terms of temperature within a range of from 97 to 133 degrees F.

thymine. A synthetic drug which has been used with promising results in the treatment of pernicious anemia. The original substance was first isolated from the thymus gland.

Trinoscope. Trade name for a system of color television by electronic means now under development by the Radio Corporation of America. The image is scanned by a color-slide television camera and received by a set of three Kinescopes which blend the separate color signals into the completed picture on the screen.

triptane number. An improved measure of the efficiency of a motor fuel, expressed in terms of a blend of normal heptane and the high-quality fuel triptane, each containing a specified amount of tetraethyl lead.

tristeza. A destructive disease of grafted citrus trees, attributed to a virus and characterized by rapid starvation of the plant tissue due to blocking of food transport between the graft and the original roots.

visagraph. An experimental reading device for the blind. It converts ordinary printed matter into raised characters which may be interpreted by touch as in the Braille system.

MEMORABLE DATES OF 1946

Jan. 1. In an Imperial Rescript, Emperor Hirohito disclaims his own divinity.

Jan. 3. President Truman requests Congress to pass legislation to avert crippling strikes.

William Joyce ("Lord Haw-Haw") is hanged in London as a traitor.

Jan. 5. Egypt's Finance Minister, Sir Amin Osman Pasha, is assassinated in Cairo.

Jan. 10. First General Assembly of United Nations meets in London; elects Paul Henry Spaak, of Belgium, President.

Jan. 14. Beginning of three-day general strike in Argentina.

Jan. 15. Strike of 200,000 C.I.O. electrical workers cuts off production of all appliances.

Jan. 17. United Nations Security Council meets for first time in London.

Jan. 20. General Charles de Gaulle resigns as head of French Provisional Government.

Some 800,000 steel workers strike.

Jan. 21. In State of the Union message, President Truman urges passage of twenty-six measures.

M. Gouin elected head of French Government.

Jan. 24. Atomic Energy Commission created by United Nations General Assembly.

Jan. 26. Strike of 250,000 meat-packing workers prompts Government to take over industry.

Feb. 1. Trygve Lie elected Secretary-General of United Nations.

Dr. Tildy elected President of Hungary.

Feb. 5. U.S. and Great Britain recognize Government of Rumania.

Feb. 6. Security Council rejects Russia's request to investigate presence of British troops in Greece.

Feb. 10. Generalissimo Stalin outlines new five-year plan for Russia.

Feb. 11. Terms of Yalta secret agreement made public.

Feb. 12. State Department accuses Perón regime in Argentina of Axis complicity.

Feb. 13. Harold L. Ickes, Secretary of Interior, resigns.

Feb. 15. Steel strike ends with 18½-cent per hour wage increase

Feb. 18. Four American Archbishops elevated to Cardinals.

Feb. 22. Egyptians carry out violent anti-British riot.

General Yamashita, former Japanese commander in Philippines, hanged in Manila.

Feb. 24. Juan D. Perón elected President of Argentina.

Mar. 1. Bank of England nationalized.

Mar. 4. U.S., Great Britain, and France urge Spanish people to overthrow Franco.

Mar. 6. Japan drafts new Constitution, abolishing military services and making war unconstitutional.

Mar. 10. Italy holds first free election since 1922.

Mar. 11. Herbert H. Lehman resigns as head of UNRRA; replaced by Fiorella H. LaGuardia.

Mar. 13. General Motors strike ends with minimum 18½-cent per hour increase.

Soviet troops evacuate Mukden.

Mar. 15. *Prime Minister Clement Attlee offers India full independence.*

Mar. 18. Poland and Yugoslavia sign treaty of mutual assistance.

Mar. 19. M. Shvernik elected President of Soviet Union.

Mar. 25. Iran appeals to Security Council on presence of Soviet troops.

Mar. 27. U.S. and Great Britain settle lend-lease.

Andrei A. Gromyko, the Soviet delegate to the United Nations begins 13-day boycott of Security Council in protest against retention of Iran's complaint on the agenda.

Mar. 29. French Assembly passes measures to nationalize gas and electrical industries.

Mar. 31. Rightists win first postwar elections in Greece. Under John L. Lewis 400,000 bituminous coal miners strike for higher wages and welfare fund contributed by employers.

Apr. 2. U.S. civilian production hits new peak of $150 billion a year.

Apr. 3. General Homma, who ordered Bataan Death March, executed in Manila.

Apr. 4. Soviet Union agrees to withdraw troops from Iran by May 6.

Apr. 5. Soviet Union and Iran sign oil agreement.

Apr. 10. Poland calls on Security Council to act against Franco regime in Spain.

Japanese vote in first free parliamentary elections since 1932.

Apr. 18. League of Nations dissolved.

U.S. recognizes Tito Government in Yugoslavia.

Apr. 23. Security Council refuses to drop Iran case from agenda.

Manuel A. Roxas elected President of the Philippines.

Apr. 25. Council of Foreign Ministers meets in Paris to draft peace treaties for Italy, Rumania, Bulgaria, Hungary, and Finland.

Apr. 29. U.S. proposes treaty with Allies to keep Germany disarmed for 25 years.

May 5. France rejects proposed Constitution in referendum.

May 6. Council of Foreign Minister reach impasse on Trieste; Russia backs Yugoslavia on demands, while Western Allies support Italy.

Russia abandons claim to trusteeship over Italian Tripolitania.

May 7. Great Britain promises to evacuate troops from Egypt and negotiate new treaty.

May 9. King Victor Emmanuel III of Italy abdicates; is succeeded by Crown Prince Humbert.

May 13. Greek Parliament holds first meeting in ten years.

May 15. President Truman seizes railroads as strike threatens.

May 16. Great Britain offers India a home-rule plan within the framework of a Hindu-Moslem federal union.

British troops leave Egypt.

Shigeru Yoshida becomes Japanese Premier.

May 17. Marshal Antonescu, wartime Rumanian Premier, sentenced to death.

May 23. Strike stops all U.S. railroads.

May 25. Railroads resume operation as unions accept President Truman's terms of 18½-cent hourly increase.
Trans-Jordan declared independent.
May 26. Communists win Czechoslovak elections.
May 29. Coal strike ends with miners receiving modified welfare fund.
Mufti of Jerusalem escapes from France.

June 2. Election in Italy abolished monarchy; Christian Democrats win.
French elections give victory to Popular Republican movement with Communists second.
June 3. War crimes trials open for twenty-seven Japanese war leaders.
June 6. Fred M. Vinson appointed Chief Justice of U.S. Supreme Court.
June 10. Tito Government of Yugoslavia opens trial for General Draja Mihailovitch, accused of collaborating with Nazis.
June 11. President Truman vetoes Case Bill curbing strikes.
June 12. Foreign Minister Bevin claims entrance of 100,000 Jews into Palestine would stir Arab opposition.
June 14. United Nations Atomic Energy Commission holds first meeting.
June 15. Council of Foreign Ministers resumes conference in Paris.
June 19. Russia and the United States differ on plans for control of atomic energy.
Georges Bidault elected provisional President of France; elected Premier on June 24.
June 20. Council of Foreign Ministers postpones for a year the disposition of Italian colonies.
June 26. Russia uses veto power three times to keep the Spanish question on Security Council agenda.
June 28. Chester Bowles resigns as OPA chief.
June 29. British troops arrest 2,718 Palestinian Jews in effort to capture terrorists.

July 1. Atom bomb dropped in first Bikini Atoll tests destroys eleven and cripples twenty-five ships.
Sarawak ceded to Great Britain.
Dr. Beel heads Netherlands Coalition Government.
July 3. Trieste internationalized by Council of Foreign Ministers.
July 4. Independence of the Philippines proclaimed.
July 10. Foreign Minister Molotov indicates that Russia wants to see a centralized Germany; demands $10 billion in reparations from Germany.
July 13. U.S loan of $3,750,000 to Great Britain approved by Congress.
July 15. General Mihailovitch sentenced to death by Yugoslavia; executed on July 17.
July 19. Andrew J. May, chairman of the House Military Affairs Committee, subpoenaed by the Senate to explain his connections with a munitions combine.
July 20. Admiral Kimmel and General Short, commanders at Pearl Harbor, blamed by congressional investigating committee for negligence in Japanese attack on Pearl Harbor.
July 21. Great Britain rations bread and flour.
President Villarroel of Bolivia killed by revolutionists.
Turkish general election gives victory to People's Party.
July 22. Members of Jewish underground in Palestine bomb British headquarters, killing 91.
World Health Organization approves constitution in New York.
July 25. Second atom bomb at Bikini explodes under water, sinking 95,220 tons of shipping.
Congress passes new OPA bill.
July 26. Congress turns U.S. atom control over to a civilian board.
July 29. Peace conference of 21 nations opens in Paris to discuss peace treaties for Italy, Hungary, Rumania, Bulgaria, and Finland.
Great Britain and the U.S. agree to merge zones in Germany.

Aug. 1. President Truman approves civilian control of atomic energy.
Aug. 2. General Falkenhorst, former German commander in Norway sentenced to death; later commuted to 20-years imprisonment.
Aug. 5. General Inönü reelected President of Turkey.
Aug. 12. British intercept Jewish refugee ship en route to Palestine, interning passengers on Cyprus.
Aug. 19. U.S Army air transport shot down over Yugoslavia; strong note of protest sent by the U.S. on the following day.
Aug. 24. Pandit Nehru heads interim Government in India.
Aug. 29. On the applications for United Nations membership, the Security Council approves Sweden, Iceland and Afghanistan; Russia vetoes Eire, Portugal and Trans-Jordan; other Council members veto Albania and Outer Mongolia.

Sept. 1. Monarchy retained in Greece after referendum and King George II restored to throne.
Sept. 4. Soviet Ukraine tells Security Council that British troops threaten peace in Greece.
Sept. 5. Seamen's strike, begun by A.F. of L., paralyzes U.S. shipping.
Sept. 6. Austria and Italy agree on South Tyrol.
Sept. 8. Bulgaria referendum abolishes monarchy for republic.
British war veterans, unable to find places to live, seize private property in London.
Sept. 10. Great Britain and Russia sign trade agreement. Congress restores price ceilings on meat.
Sept. 13. A.F. of L. seamen return to work with new wage scales.
Sept. 14. C.I.O. seamen strike to obtain wages equivalent to A.F. of L. scale.
Sept. 15. Shipping strike ends.
Sept. 18. New Constitution approved in Brazil.
Sept. 20. President Truman forces resignation of Secretary of Commerce Henry A. Wallace. Russian demand for investigation of British troops in Greece rejected by Security Council.
Sept. 24. Generalissimo Stalin says there is no real danger of war.
Sept. 28. Australian general election gives victory to Labor party.
Yugoslavia finds Trieste provisions in treaty with Italy unacceptable.
Sept. 30. Nuremberg War Crimes tribunal condemns 11 Nazis to death, including Goering, Keitel, and Jodl; sends Hess and others to prison and acquits Schacht, Papen, and Fritzsche.

Oct. 1. New shipping strike begins.
Oct. 3. Arabs publish plan for independent Palestinian state.
Oct. 4. President Truman urges admittance of Jews into Palestine.
Oct. 6. Churchill asserts his intention to remain in politics as head of the Conservative party.
Oct. 9. Paris Peace Conference adopts draft of Italian treaty.
Oct. 10. Chiang Kai-shek reelected President of the Chinese Central Government.
Rumanian draft treaty accepted by Paris Peace Conference.

connection with the Civil War. Its charter, passed by Congress and approved by President Lincoln in 1863, provides that it "shall, whenever called upon by any department of the Government, investigate, examine, experiment, and report upon any subject of science or art, the actual expense of such investigations . . . to be paid from appropriations which may be made for the purpose, but the Academy shall receive no compensation whatever for any services to the Government of the United States."

The membership of the Academy is limited to 450 citizens of the United States and 50 foreign associates. There are no applications for membership. Nominations are presented by the sections representing different sciences.

In order to permit the organization of the nation's scientific resources on a more inclusive scale than was possible within the membership of the Academy itself, the National Research Council was organized by the National Academy of Sciences at the request of President Wilson in the spring of 1916, and was established on a permanent basis on May 11, 1918, by Presidential Executive Order, "to promote research in the mathematical, physical, and biological sciences, and in the application of these sciences to engineering, agriculture, medicine, and other useful arts, with the object of increasing knowledge, of strengthening the national defense, and of contributing in other ways to the public welfare."

The membership of the Council is composed largely of appointed representatives of approximately eighty-five of the major scientific and technical societies of the country, together with representatives of certain other research organizations, representatives of Government scientific bureaus, and a limited number of members at large. These members are appointed by the President of the National Academy of Sciences. Serving on Committees of the Council are approximately 1,800 outstanding scientists.

The Academy-Research Council does not maintain scientific laboratories but functions through sponsorship of conferences, technical committees, surveys, scientific publications, and administration of funds for research projects and fellowships.

The administrative costs of the Academy and Council are charged against the income of a permanent endowment given, together with the building, by the Carnegie Corporation. Financial support of scientific projects is obtained from contracts with governmental and private agencies and from special grants from foundations, societies, and individuals.

Many highly confidential projects contributing directly to the war effort were financed through contracts with the Office of Scientific Research and Development, War Production Board, War and Navy Departments, and other Federal agencies, as well as by grants from various sources.

The Academy issues the Proceedings, Scientific Memoirs and Biographical Memoirs. An Annual Report is made to Congress and published.

The Council issues a series of Bulletins, Reprints, and Circulars. A list of publications, with prices, is available upon request. Academy officers: Frank B. Jewett, President; Luther P. Eisenhart, Vice President; Detlev W. Bronk, Foreign Secretary; F. E. Wright, Home Secretary; J. C. Hunsaker, Treasurer; G. D. Meid, acting Executive Secretary. Council officers: Detlev W. Bronk, Chairman; G. D. Meid, acting Executive Secretary.

The building of the National Academy of Sciences and the National Research Council is located at 2101 Constitution Avenue, Washington 25, D.C.

ACCIDENTS. The trend of accidental deaths in 1946 was relatively unfavorable, according to records for the first ten months, but there was a marked improvement after March. Estimates made by the National Safety Council were as follows:

Month	*1946*	*1945*	*Change*
January	8,900	8,000	+11%
February	8,100	7,200	+12%
March	8,400	7,600	+11%
April	7,700	7,200	+7%
May	7,800	7,500	+4%
June	8,100	8,100	0
July	8,800	8,700	+1%
August	8,100	8,000	+1%
September	7,700	7,400	+4%
October	7,800	8,100	−4%
Ten Months	81,400	77,800	+5%

Motor Vehicle Accidents. The large increase in deaths in the early months was principally in motor vehicle accident fatalities. This was in part the result of the great expansion in use of automobiles after gasoline rationing was discontinued. Vehicle mileage in January, February, and March was 41 percent more than in the same months of 1945, and deaths were up 50 percent.

In May President Truman called the Highway Safety Conference, a three-day meeting of state and city motor vehicle officials and non-governmental organizations working in the accident prevention field. The Conference was called to determine the best available methods of enforcement, engineering, and education to reduce the motor vehicle accident toll. The effectiveness of the Conference is shown by the death record in succeeding months. In June and July deaths were only 23 percent above 1945, although mileage was up 50 percent. The August death toll was 17 percent more than in 1945, while mileage rose 36 percent. In September and October—months without gas rationing in either year—deaths numbered one percent less than in 1945 although mileage, according to preliminary estimates, was about 27 percent greater. The outlook is indeed encouraging.

The ten-month total of motor vehicle deaths was 27,520, a 25 percent increase from 1945, but still 14 percent less than prewar 1941.

Public Non-Motor-Vehicle Accidents. Deaths of civilians from public accidents not involving motor vehicles numbered approximately 13,700, or 400 more than occurred in the same months of 1945. There were fewer deaths from railroad and street car accidents, according to preliminary reports. Fatal falls and drownings numbered about the same as in 1945. However, there were increases in deaths from burns and firearms accidents.

In children five to fourteen years old there was recorded a decrease, but in all other age groups there were recorded more deaths than in 1945.

Occupational Accidents. The 1946 ten-month death total for civilian occupational accidents was approximately 13,700, an increase of 300 from 1945. Information is not yet available on the distribution of deaths by industry, but the large gain in construction employment indicates that at least a part of the increase was in that group.

Reports in accident prevention contests indicate that the trend of non-fatal injuries during 1946 was upward, although the change apparently was not large.

Home Accidents. There were approximately 27,200 deaths of civilians from accidents on home premises, during the first ten months of 1946, or 500

more than occurred in the same months of 1945. Falls, which account for about half of the total, showed little change; but deaths from poisons, burns, mechanical suffocation, and firearms accidents all increased. The increases were partly offset by a decrease in asphyxiations.

The rise in deaths was confined to the age groups including persons five to forty-four years old. There was a small decrease for persons forty-five to sixty-four years old, while children under five and persons sixty-five years and older had about the same number of deaths as in 1945.

Military Personnel. Accidental deaths of military personnel in the United States dropped from about 6,100 in the first ten months of 1945 to 2,700 in the same months of 1946. This is a reflection of the decrease in the number of men and women in the Armed Forces, and probably of the even greater reduction in some of the more hazardous types of training.

A. D. BATTEY.

ADMIRALTY ISLANDS. A group of islands (Manus is the largest) in the Australian mandated Territory of New Guinea, of which it forms the Manus district. Total area: 800 square miles. Population (June 30, 1941): 14,234 natives. Capital, Lorengau (on the island of Manus).

ADVANCED STUDY, Institute for. An institution of higher learning founded in 1930, by Mr. Louis Bamberger and Mrs. Felix Fuld. The Institute is different in character from any other American educational institution in that it is planned for students who wish to pursue advanced research beyond the level of the doctor's degree. It has no tuition fee, no routine requirements, no examinations, and it awards no degrees. The work is largely individual, though there are seminars and courses of lectures in some subjects. Since the individuals who attend the Institute are in many cases extremely eminent in their subjects, the word "student" is not used, but they are rather designated as "members." The two groups, the faculty, and members of the Institute are in reality a body of scholars working together.

The Institute is supported entirely by endowment. Located at Princeton, New Jersey, the Institute has no official connection with Princeton University, though there is a great deal of informal cooperation between the two institutions.

In 1946 the Institute embarked upon a project, under the direction of Professor von Neumann, of building a general purpose electronic computer. The design of this piece of equipment takes advantage of the experience of various laboratories with building devices of this sort during the war. The computer which is planned for the Institute is expected to be simpler, more rapid, and more versatile than any existing machine. In the construction of this computer the Institute has the support of the Army Ordnance Department and the cooperation of the Princeton Laboratories of the Radio Corporation of America and the Physical Laboratories of Princeton University.

The members of the Economics Section of the League of Nations, who have been in residence at the Institute since 1940, have now been appointed to the United Nations and transferred to the headquarters on Long Island. Members of this group were invited to Princeton in the dark days of 1940 when it looked as if the German armies might overrun Switzerland. The purpose of the Trustees of the Institute was to preserve the group intact and conserve the experience of its members for the benefit of whatever international organization might succeed the League of Nations after the war, thus saving for the new organization, the immense store of technical knowledge and experience gathered by these experts, in twenty years of work for the League. That purpose has now been fulfilled.

Bulletin No. 12 of the Institute for Advanced Study, published in October, 1946, gives in as much detail as military secrecy will allow, the war record of the members of the faculty. Director: Dr. Frank Aydelotte. Director Emeritus: Dr. Abraham Flexner. Headquarters: Fuld Hall, Olden Lane, Princeton, New Jersey.

ADVENT MOVEMENT. A religious movement which originated in America with William Miller (1782–1849), who believed in the imminent, personal second coming of Christ. There are six Adventist bodies in the United States, the largest being the Seventh-day Adventist Denomination, formally organized in 1860, which observes Saturday as the Sabbath of the Scriptures. Headquarters, Takoma Park, Washington, D.C.

ADVERTISING. Advertising launched into the unpredictable business waters of 1946 with a real war record of accomplishment behind it. During the war years it had devoted more than $1-billion of time and space, contributed by American business, to keeping Americans informed about war bonds, the armed forces, the merchant marine, civilian nurses, V-mail, food, conservation, salvage, manpower, and numerous other subjects bearing upon the united interests of the nation. It cooperated with more than two dozen government departments and agencies in more than 100 home-front campaigns. It greatly broadened its scope as a means of disseminating all manner of useful and needed information for the purpose not only of selling goods but also of furthering civic and patriotic ends.

As the 1946 months slipped by, business and industry turned to the use of this effective tool in the rebuilding of a full peacetime economy, though much space and time was still devoted to interests other than the selling of goods and services.

Advertising was used, for instance, in efforts to compose the differences between labor and management that resulted in crippling strikes during the course of the year.

The Advertising Council, which had furthered the national purpose magnificently as the War Advertising Council, added the pressure of advertising to the National Safety Council's drive to cut down the rising tide of accident casualties.

The Chicago Health Department used advertising with telling effect in its anti-venereal disease drive. Many other non-commercial uses of advertising climbed into public attention during the year via the printed word and the air waves, such as the New York Stock Exchange's campaign to clear up misconceptions, explain the Exchange's functions, and protect the public; the Chesapeake & Ohio Railroad's campaign to modernize railroad passenger service; and various campaigns to re-sell the idea of free enterprise to a confused public.

In accomplishing its commercial and non-commercial tasks, 1946 advertising set a new high mark of expenditure. In spite of many confusing and harassing experiences, it accounted for the disposition of more than $2.6-billion, compared with less than $2.4-billion spent in 1945.

This expenditure supported an economy reconverting from war to peace and characterized by such facts as sales in retail stores that, in the first

seven months of 1946, were at an annual rate of $93-billion—"the largest in the nation's history," according to the Department of Commerce.

Legal Developments. On the legal front, one significant development during 1946 was the passage of the Lanham Act, a rewriting of the copyright law which provides for the first time for the registry of service marks, including such things as the identifying devices of radio commentators, and for their incontestability after five years of undisputed use.

Another development of widespread interest was a change in Federal Trade Commission policy, known as the Truman Plan, replacing citations of individual companies for isolated violations of trade practice laws with fair practice codes developed from conferences with all interested parties.

A third legal development during the year was the U.S. Supreme Court's formal decision upholding a lower court's verdict that the use of $40-million for advertising by American Tobacco Company, Liggett & Myers, and R. J. Reynolds, constituted a case in restraint of trade and monopoly. "Such tremendous advertising," Justice Burton held in the court's unanimous opinion, "is a widely published warning that these three companies possess and know how to use a powerful offensive and defensive weapon against new competition."

Reconversion Pains. Advertising's progress through 1946 was not without its setbacks. A strike of 6,000 truckmen blacked out newspaper advertising in New York City and other centers. Scarcities of materials and, in some industries, of skilled workers slowed the wheels of production. A midyear break in the stock market started a downward trend that somewhat dampened the high hopes of earlier months.

Paper shortages still plagued publishers, and rising costs plagued everybody. At the end of 1946, the costs of advertising were up 20 to 35 percent and still rising. Large national advertisers were predicting greater flexibility in their 1947 plans than ever before. The happy, hopeful spirit that followed V-J Day gave way to disturbed emotions and uncertainty.

These difficulties bore on different departments of the advertising industry with unequal force, but, despite them, the industry as a whole turned in a record year. A spot check of the several major advertising classifications will help to clarify that record.

Magazines. National magazine advertising hit an all-time high in 1946, accounting for an expenditure for space of approximately $375-million, compared with $305-million in 1945. The 1929 predepression peak was $197-million.

An interesting sidelight indicative of the high activity in national magazine advertising was the October issue of *Ladies' Home Journal*, which carried the largest dollar volume ever appearing in any issue of any magazine in publishing history—over $2-million.

During the year, national magazines also set a new high in readership. In the twenty-five year period from 1921 to 1945, for example, national magazine members of the Audit Bureau of Circulations showed a circulation growth from less than 50-million to just short of 150-million. About 62 percent of this circulation was sold by newsstands, copy by copy; about 34 percent was sold on a subscription basis. Circulation growth continued throughout 1946.

Newspapers. The money spent for advertising space in newspapers during 1946 exceeded three-quarters of a billion dollars. In this field, the year was marked by the publication of Neil Borden's book, *National Advertising in Newspapers*, which represents probably the most important research into this problem that has ever been done. Another notable project was begun in the organization of the American Newspaper Advertising Network, an experiment in applying to national advertising in newspapers the basic principles of network radio advertising. Considerable expansion took place in the use of color in newspaper advertising.

The American Newspaper Publishers Association's Bureau of Advertising, with a membership of 1,063, representing some eighty percent of the daily newspaper circulation in the United States and Canada, initiated an active program of service to advertisers and agencies. The Bureau's program includes such services as making available market and media information for every county in the United States, measurement of the flow of goods through retail stores, and a continuing study of newspaper reading.

The 1946 Directory of County and Suburban Town Newspapers listed 8,504 non-daily newspapers (223 less than for 1945) with an aggregate circulation of 14,321,000 in towns under 50,000 (165,000 more than for 1945).

Radio. Despite some cancellations in the first half of the year, radio advertising volume for 1946 approximated $190-million of gross advertising revenue, comparing favorably with its 1945 volume. Some advertisers who had cut down time schedules because of shortages and other uncontrollable factors were replaced by companies which had been awaiting favorable openings. Others reinstated their programs later in the year.

The Federal Communications Commission anticipated an increase in the number of television stations within the next few years, from the six operating in mid-1946 to between two hundred and three hundred.

Some progress is reported in color video, although general acceptance by the industry of the switch to the higher wave lengths, necessary for color video broadcasting, may continue to be slow. According to the magazine *Tide*, present television broadcasting channels for New York stations range from 54 to 82 megacycles, while Columbia Broadcasting System used the 480 to 496 megacycle area for experimental color video.

Business Papers. From the depression low in 1933, the upward trend of expenditures for advertising space in business papers has increased some 500 percent. In 1946, it is estimated that advertisers will spend $111-million in business papers. This represents an increase of less than 4 percent over the 1945 estimate of $107-million reported in the 1946 issue of *Brad-Vern's Reports*.

The greatest expansion in business paper use came during the war years. The year 1945 registered a gain of 21 percent; 1944, a gain of 22 percent; and 1943, a gain of 36 percent. Reconversion from wartime to peacetime operations, strikes, material and manpower shortages, were major deterrents to the continued expansion of business paper advertising.

The 1946 trend of advertising copy addressed to business and technical men has been away from the generalized institutional type toward the more factual and informative as inter-product and inter-company competition for the major industrial and business markets has sharpened. This was a natural result of industry's beginning attempt to find peacetime uses for its war-expanded production facilities.

Direct Mail. About half a billion dollars a year is spent for direct mail and mail order advertising.

The field is huge and diverse. One of the great mail order houses spends more than $500,000 a year for postage alone, and more than one dollar each, on its big catalogs. Magazine publishers spend about half of their advertising money for direct mail solicitation of subscriptions. Wholesalers, colleges and charities, dunning for alumni dues and for contributions; department stores, corporations sending reports to stockholders; manufacturers' mailing house organs and other sales literature, swell the volume of advertising directed to individuals via the mails.

Other Advertising. The use of *outdoor advertising* for the first six months of 1946 was estimated to be 25–30 percent over the same 1945 period.

The use of *films*, both moving picture and slides, increased during the year. According to a study made by the Association of National Advertisers, about 70 percent of this use was for promotion or educational purposes, while approximately 30 percent was used for sales training.

Sampling and *premiums* appear to be on the way back, also, after their wartime suspension. Lack of manpower has retarded the progress of sampling plans to some extent, while drastic shortages in premium-size packages have held up the offerings of many planned premiums.

The year's end found many advertisers facing the need to tailor 1947 schedules to fit fixed budgets to rising costs. Only a minority were planning to meet this situation in whole or in part with increased appropriations.

J. R. VAN ARSDALE.

AEGEAN ISLANDS. The islands in the Aegean Sea near Turkey in Asia; under Italian rule from 1912 to 1944. (see below under *Political Future*). They include the Dodecanese group with Rhodes and Castelrosso. Their area and population together with their Italian names in parentheses are given in the accompanying table.

Island	*Sq. mi.*	*Pop. (1936)*
Astropalia (Stampalia)	44	2,006
Casos (Caso)	27	1,890
Castelrosso	4	2,238
Cos (Coo)	111	19,731
Kalymnos (Calino)	49	15,247
Karchi (Calchi)	12	1,461
Karpathos (Scarpanto)	118	7,770
Leros (Lero)	28	13,657
Lipso (Lisso)	7	977
Nisyros (Nisiro)	18	3,391
Patmos (Patmo)	22	3,184
Rhodes (Rodi)	545	61,886
Symi (Simi)	25	6,195
Tilos (Piscopi)	25	1,215
Total	1,035	140,848

The total population in 1936 (140,848) comprised 85 percent native, 12 percent Italian, and 3 percent foreign. On January 1, 1940, the total population was 122,000. Chief towns (1936 populations): Rhodes (capital) 27,466; Kalymnos 15,247; Cos 9,852; Symi 6,195.

Production, etc. The principal agricultural products consist of grapes, olives, tobacco, oranges, and vegetables. Sponge fishing, and the manufacture of artistic pottery and tiles, tobacco, wine, olive oil and oriental carpets are the chief industries. Trade (1938): imports 157,421,000 lire; exports 21,851,000 lire (lira was worth $0.0526 for 1938). Roads (1940): 391 miles.

Political Future. Under the terms of the armistice granted to Italy by the Allies during September, 1944, Italy officially relinquished her hold over the Dodecanese. German occupation continued until the unconditional surrender of Germany to the Allies which became effective on May 8, 1945. Thereafter the islands were subject to Allied control. Italian Foreign Minister de Gasperi in a letter dated August 22, 1945, to United States Secretary of State James F. Byrnes agreed to cede the Dodecanese to Greece. On June 27, 1946, the Big Four Foreign Ministers, meeting in Paris, officially awarded all the Italian Aegean Islands to Greece.

AERONAUTICS. As was to have been expected, the year 1946 was a transition period for all phases of aviation. Its two largest segments, manufacturing and transport, underwent the same reconversion difficulties as other industries, reached new heights in some instances, as did other industries, and toward the end of the year were going through the same "shaking down" process as the general economy.

Examining this cycle, aviation observers were inclined to accept it as evidence of one development they had predicted during the war—that aviation had taken such giant strides that in the postwar era it would blossom into a full-fledged part of the nation's economic life. In general, during the year, the greatest overall progress was made in air transport, with thousands of miles of new routes, both domestic and international, being activated and three new fields for air transport activity opening up: cargo, local and non-scheduled traffic. Remarkable achievements, however, were announced in manufacturing and research including the first flight of a United States-built rocket-powered aircraft, and the development and flight of a giant flying wing aircraft, both accomplishments stemming from military contracts.

Air Transport. Although even before the end of the war, the commercial airlines had begun getting back from the Army and Navy transport planes requisitioned early in the war, and receiving other aircraft from surplus stocks, the additional seating capacity made available in this manner was not truly manifested until early in 1946 when four-engined aircraft which had been months in the reconversion process, were put into service. The first was put into operation by Pennsylvania Central Airlines (Capital Airlines) on January 20. This was a *DC-4*, known in the Army as a *C-54* and in the Navy as an *R5D*. It had been designed before the war as a joint airline–Douglas Aircraft Corporation venture as a larger sister-ship of the famous two-engine *DC-3*.

The effect of the appearance on the airways of the *DC-4* and of the four-engine *Constellation*, built by Lockheed Aircraft Corporation, which was put into service a few months later, is shown by the capacity statistics of the airlines. On December 15, 1945, domestic and international carriers were operating 495 planes with a total seat capacity of 10,889. On December 15, 1946, the number of planes had increased to 816, but the seats available were far greater proportionally, 25,541.

The availability of new and reconverted aircraft all through the year was apparent in the expansion and operation of both domestic and international airline routes. Domestic route mileage climbed to 90,000 miles during the year, an increase of about 22,000 miles. In the international field, 68,000 new route miles were authorized during the year, bringing the total to approximately 175,000 miles. For the twelve months, it was estimated that domestic carriers flew 6,000,000,000 revenue passenger miles, a gain of about 72 percent over 1945. Express and freight shipments on domestic certificated airlines increased 57 percent, to 37,000,000 ton miles. Miles flown domestically totaled

300,000,000. During the year 1946, airmail carried decreased to an estimated 32,000,000 ton miles, a drop of about 50 percent, credited chiefly to a reduction in armed forces mail and a revision of business to a slower, peacetime tempo.

Internationally, the increases were even more spectacular. A gain of 118 percent was registered in passengers carried, the number being 1,000,000. Revenue passenger miles totaled 1,000,000,000, up 139 percent. Express and ton miles flown increased 175 percent to 24,000,000. In contrast to the domestic situation, airmail in international operations increased about 30,000, to 6,000,000 ton miles. Miles flown reached 67,000,000, a gain of 88 percent.

At the base of this expansion was the granting of new route certificates by the Civil Aeronautics Board. Due to the necessity of concentrating all energy on the war program, the CAB had adopted a policy of deferring route applications. After the victory in Europe decisions in some cases began to be announced, but the real flood did not come until 1946. During the year, the CAB decided seven cases, creating nine new domestic airlines, with a total of about 11,000 new route miles, besides adding mileage to existing carriers and granting new international routes to present United States airlines.

The CAB, in its domestic decisions, in effect created a new class of Federally-certificated air carriers, the local service airlines, commonly, somewhat erroneously, known as feeders. They do feed some traffic to trunk lines but they render service between smaller cities and connect these cities to large cities in the trade area. Much of such traffic does not "feed" into any other transportation system. All of the domestic decisions during the year on new routes for new carriers, five in number, involved local service in regions. In this type of service, in which an airline serves frequent stops over a small system the awards have ranged from about 500 to 1,900 route miles. Essair, Incorporated (now Pioneers Airlines) was first certificated during the war to render this type of service over a route lying wholly within the state of Texas. All of these certificates, including the original one to Essair, or Pioneer, are for three years. After exhaustive investigation of the local service theory during the war, the Board decided to authorize certain carriers in specific regions for a limited time in which to gauge the economic potentials of this type of service. By the end of November, 1946, the CAB had certificated 10 local service carriers, including Pioneer, with a total of 11,728 route miles.

Few of the newly-authorized local service air carriers had begun operations by the end of 1946. By December several of the local service airlines had given indication that they intended to ask the Board for extensions to their allotted mileages. Complicating the local service situation was the lack of an airplane specifically designed for this type of traffic. In mid-year, Lockheed Aircraft Corporation, which had already test flown its 14-passenger *Saturn* (see plane listing below), especially designed for short-haul traffic, announced it would not put the aircraft into production. Boeing Aircraft Company, which had planned a 20-passenger plane, the *Model 417*, for the same purpose, similarly announced a suspension in production plans. That left two aircraft tailored to the needs of local service operators still planned, the 20-passenger *Model 34 Beechcraft* and the *Northrop Pioneer*. Local service airlines were forced to plan initial operations with aircraft which were too small, or the surplus *DC-3* types. The majority of the operators chose the *DC-3*.

The CAB's decisions in route cases, while giving promise of an increased and better integrated air transport system, was largely expansion on paper due to the time it takes to begin operations over a newly-certificated route. The real expansion during 1946 came from the already-certificated carrier's adding planes and more schedules to their existing systems. For the first six months of the year, revenue passenger miles were 2,581,608,616, as against 1,443,195,845 in the same period of 1945, an increase of 78.88 percent. As an index to the effect of more and larger planes, however, the passenger load factor (average percentage of available space occupied on a flight) dropped in the first half of 1946 to 84.28 from 87.76 in the first six months of 1945. By the end of the year the percentage was from 75 to 80 for large lines, and 60 to 65 for the others.

This same situation applied in the international field, particularly on the trans-Atlantic routes. As fast as equipment became available, the airlines added new routes and flights. In the last half of the year, the passenger load factor decreased considerably due to the fact that there was a tremendous backlog of westbound reservations in Europe; some lines were booked for five and six months ahead. This resulted in a drop in eastbound bookings as passengers were hesitant to fly to Europe when they had no assurance of return passage for months.

The expansion in volume of service performed by the United States international air transport system, was already well underway by mid-year. On December 31, 1945, there were five carriers operating 108,681 route miles internationally; on July 1, 1946 eleven lines flew 127,611 route miles.

This physical expansion is probably the poorest measure of expansion and gains in international air transport. Far more important—because without them no route expansion would be possible—were activities in the diplomatic and political fields. At the International Civil Aviation Conference in Chicago in 1944, principal nations of the world agreed to the establishment of a temporary international organization—pending ratification of a convention for a permanent agency—with broad advisory powers on technical safety and navigation problems. At that time, no solution acceptable to the nations with the greatest stake in international air transport, the United Kingdom and the United States, could be found to economic matters such as, rates, routes, and frequency of schedules. This aspect was finally put over for future discussion.

In January and February, 1946, representatives of the governments of the United States and the United Kingdom met in Bermuda to attempt to work out, in a bilateral agreement, the matters upon which agreements could not be achieved at Chicago. After several weeks of debate, the representatives of both governments approved a compromise. At Chicago, the British had held fast to the argument that the international regulation of rates and the apportioning of capacities and control of frequencies must be a part of any international air transportation agreement. The United States, on the other hand, maintained that such provisions would tend to cripple international air transport and to retard its development very seriously. At Bermuda, each of these nations made concessions from their original positions in order to achieve an agreement. The United Kingdom acceded to the view that the agreement should not provide for any

division of capacity or control over frequencies except in certain contingencies where it might be found that the air carriers of the other party had been engaging in practices which "unduly affect" the air carriers of the other party. On the other hand, the United States acceded to the view that rates charged by an international air carrier of either of the two countries should be subject to governmental review, first by the two countries in consultation and, if they could not agree, by the international air organization established as a result of the Chicago Conference. Also included in the Bermuda agreement was a provision permitting the carriers of either country to pick up traffic or send on traffic in the other country destined to or coming from a third country. This is the right which has so commonly been referred to as the "fifth freedom."

The Bermuda agreement was very important in that it broke the log jam between the world's two leading air transport nations and, in a sense, set a pattern for bilateral transport agreements thereafter to be negotiated by the United States with a number of countries. Bermuda-type agreements have now been made with France, Belgium, Greece, Egypt, India, China, the Philippine Islands, Australia and New Zealand, as well as with Brazil and various other countries in Latin America. The completion of these bilateral agreements, and others which had been made before the Bermuda agreement, go far toward permitting the United States air carriers to realize effectively a route pattern first enunciated by the CAB in the summer of 1944. All of the agreements made by the United States, on a bilateral basis, and which are now in effect are as follows: Belgium, Brazil, Canada, Ecuador, Czechoslovakia, Denmark, Eire, Egypt, France, Greece, Iceland, India, Lebanon, Norway, Philippine Islands, Portugal, Spain, Sweden, Switzerland, Turkey, United Kingdom, New Zealand, Australia, Uruguay, Peru, China.

It should be made clear that the Bermuda agreement is in no way dependent or related to the arrangement under which the International Air Transport Association, composed of all, or substantially all, of the international operators, reaches a certain agreement relating to international rates. In the United States, although the CAB does not have control over the rates of international air carriers, no agreement between air carriers can be made affecting rates or other phases of air transportation without the necessity of securing the approval of the CAB which can be given only if it finds that the agreement is not contrary to the public interest. It just happened that the CAB approved this International Air Transport Association machinery for reaching rate agreements and submitting them to the CAB for its approval about the same time as the Bermuda agreement was made. The first rates submitted to the CAB by IATA were disapproved by the Board on the ground that there was no economic data to support them. This rate structure was later revised by IATA, resubmitted to the Board with economic supporting data, and the revised rates so submitted were approved. These rates, as so revised, reduced international fares substantially.

CAB's approval of the IATA machinery for the fixing of rates and other traffic matters was to last for one year. This matter will be up for consideration by the CAB in February of 1947.

Following the Bermuda agreement and the first Interim Assembly of the Provisional International Civil Aviation Organization in Montreal in May and June, 1946, the United States enunciated the International Air Transport Agreement, which was one of the various agreements offered by the United States at the Chicago Conference. This agreement was always controversial because it provides for the establishment of international routes, if they are reasonably direct in their courses between the signatory states, without any economic control. The lack of economic control made this agreement quite unsatisfactory to the United Kingdom, to France, and to certain other nations. It had not been widely accepted and, in view of the intervening circumstances, it could not be accepted later by the large air transport operating nations of the world. The United States withdrew its support of that agreement. It is sometimes referred to as the "five freedoms agreement." Another reason for its denunciation was that, in all probability, the pattern of the Bermuda agreement was expected to become acceptable generally and, since it did provide for economic controls over rates, there seemed to be nothing but confusion resulting if the Air Transport Agreement were left standing.

During the year 1946, PICAO, Provisional International Civil Aviation Organization, accomplished some outstanding work in the field of safety and in the standardization of technical provisions for the operation of international air lines throughout the world. Credit goes to the President of this organization, Edward Warner, and the Council of PICAO which worked with him toward the achievement of real progress in this international field. A good number of regional conferences were held in various parts of the world and much progress was made toward the organization of international air transport and the standardization of basic procedures.

While these important matters were being handled by the aviation diplomats of all countries, the aviation policy-makers in the United States were also affecting the international air transport system. A committee of Congress once again refused to approve the "community company" proposal which would establish one airline to conduct all United States international operations. In July Congress ratified the convention establishing a permanent International Civil Aviation Organization. By late in the year, twelve nations had ratified the convention. Although twenty-six were needed to make it effective, little concern was aroused, because the Interim Assembly provided for simultaneous deposit of ratifications on March 1, 1947, and it was believed that most nations were merely delaying ratification action. The CAB decided the last of the major international cases, for routes across the South Atlantic.

The airlines had long planned for the enlarged system both domestically and internationally that began to take shape in 1946. They had obligated themselves heavily for new equipment, enlarged their staffs, opened new offices and, in the case of both old and new international carriers, set up world-wide traffic, maintenance and service organizations. All of these were necessary preliminary steps, even before the traffic, that would provide revenue to pay for these adjustments, could begin to develop. A number of the airlines reported losses for the first half of the year.

The result was the largest wave of new financing, at first mostly by public stock offerings, in air transportation's history. Following the break in the securities market in midsummer, financing was generally handled where possible through banks. One major airline, Trans World Airlines, suffered serious financial set-backs in the last half of the year through two events which, happening to hit

TWA hardest, still cast a shadow over the entire industry. The first was the grounding of all *Constellation* aircraft on July 13, following a fatal accident to one of the aircraft during a training flight by TWA pilots. There had been two previous cases of fire in this type of plane, neither resulting in fatalities, and the Civil Aeronautics Administration ordered the planes grounded until an investigation and hearing could be undertaken to determine if fire was an inherent hazard in the plane. The aircraft was subsequently absolved although several engineering changes were recommended and made. Meanwhile, sixty *Constellations* being operated by TWA, Pan American World Airways, American Overseas Airlines were grounded for about a month. Most of these aircraft were operated internationally. British Overseas Airways Corporation also grounded its *Constellations*. TWA, being the original sponsor of the plane, and being most heavily committed to it, was hardest hit financially by the occurrence. Among operators affected, the grounding caused a 30 percent decrease in revenue plane miles and ton miles, and a 40 percent decrease in revenue passenger miles.

Then, late in October, the first strike of pilots in airline history was called against TWA. It had been brewing for more than a year and involved pay rates for pilots and co-pilots on four-engine airplanes—which the airlines had not operated (with the exception of Pan American Airways) to any great extent before the war. The strike lasted 26 days and cost TWA several millions of dollars before arbitration by a special panel was agreed to and the pilots went back to work. The most significant aspect of the strike was that TWA was the first airline with which the union (Air Line Pilots Association) had negotiated on this subject. Shortly after January 1, 1947, the same matter was due to be discussed with the other large carriers, and the airlines' pilot payrolls were expected to be largely determined by the decision of the arbitration panel in the TWA case.

Because of labor costs and the declining passenger load factor, practically all airlines showed operating losses during the year and five asked the CAB for financial relief. A major part of this situation was the load factor. Before the advent of the *DC-4*, airlines generally figured they had to operate at an average of 60 percent of capacity to break even financially. Even by December 1946, operations with the *DC-4* were still too new to show a generally accepted break-even point. The load factor began dropping early in the summer; by fall the decrease was visibly evident to the frequent air traveler, although it spurted temporarily in October. The major worry of the airline executives was whether or not operation could be sustained through the bad weather winter months.

While even severe weather en route seldom constitutes a hazard or an obstacle to an airplane, murky conditions above an airport can either shut off flights at the departure point, or slow down landings to such an extent that the plane in the "stack" above the field may not land for a long time (perhaps hours) after coming over the field. This situation has been known to disrupt schedules and back up planes at airports across the entire country. Solutions to the problem were sought on many fronts throughout the year. In February, the Army Air Forces held an all-weather conference which, although primarily to give the AAF information for its own attempts to establish an experimental all-weather airline, gave the airlines, too, detailed explanations of practically every navigational and landing-aid system. The CAA rushed work on the installation of its own Instrument Landing System with the intention of having it in more than 100 fields by June, 1947. Government and industry joined in extensive tests at an experimental landing aids station at Arcata, California, where results capable of immediate commercial utilization were obtained with fog dispersal systems, improved approach and runway lights, and both CAA's Instrument Landing System and a war-born, radar system known as Ground Controlled Approach.

This latter operates on the well-known principle of a high-frequency beam being sent out, bouncing back from an obstacle on its course and being picked up on a radar scope. In the case of GCA, a controller on the ground can follow the course of the aircraft that intercepts the beam, and can direct the pilot by radio into the proper approach attitude and glide path to effect a landing. It is claimed that this system has demonstrated certain superiorities over CAA's ILS, but its initial cost is high and it needs highly-trained and skilled operators on the ground. In contrast, ILS is completely automatic. One of the other major differences in the two systems, and one which has been responsible for much of the controversy that surrounds them, is that ILS puts the responsibility for landing completely on the pilot. With GCA, the ground operator has the primary responsibility and both airline pilots and the airlines have shown some reluctance to put a ground operator in charge of the lives of a plane load of passengers. Despite this, both CAA and the airlines agreed to a test of GCA at three major airline terminals, Washington, New York and Chicago, where ILS likewise is installed. Beginning early in 1947, actual approaches in commercial operation will be made with ILS, and monitored with GCA, although a pilot may request that he be brought in by GCA.

Lack of dependability of schedules seemed to be a serious threat to continued volume growth of air traffic. Unless the airlines solve the weather problem their future will be seriously dimmed. When they do solve this *bête noir* their future will again seem very bright indeed.

Overall, the airline safety record domestically during the year, as shown in the following table, was better than in 1945.

Year	*Fatalities per 100,000,000 Passenger Miles Flown*	*Passenger Deaths*	*Crew Deaths*	*Total Deaths*
1945.....	2.1	76	14	90
1946.....	1.2	73	24	97

Non-scheduled Operations. The Civil Aeronautics Act of 1938 granted the Civil Aeronautics Authority (which was succeeded by the CAB) comprehensive economic control over commercial flying in the United States except for control over security issues which was withheld. In practice, the CAB exercised that control over the airlines that it certificated and that operated on regular, posted schedules. At the time when the Act became law, non-scheduled, non-certificated flying was very small in extent and was exempted from economic control in section 292.1 of the CAB's economic regulations.

The end of the war resulted in a surplus of trained pilots and transport aircraft. Due to the CAB's wartime moratorium on new route certifications, and because the certificated, scheduled carriers could not handle all the traffic available, 1945 saw the beginning of a tremendous growth of non-certificated, non-scheduled airlines which, operat-

ing under the exemption, offered to carry passengers and cargo anywhere in the country and even to foreign places. By the beginning of 1946, this activity was starting to rival in scope certificated, scheduled airline operations. A natural development was that some of the non-scheduled lines began operating only over certain routes, rather than holding themselves available for flights to any place. In order to systematize even further, some of the lines next began operating a certain number of flights daily or weekly to certain places. This provided not only a safer, but a more economic operation. But it also aroused a question as to whether these "non-scheduled" lines could any longer qualify for exemption under section 292.1.

The CAB even during the war had begun to consider the entire matter of non-scheduled operations, being fully aware that this traffic would grow rapidly after the war. It undertook a sweeping investigation of the field and in 1945 held hearings on both the safety and economic aspects of non-scheduled activities. It was, therefore, ready for the developments that were manifested in 1946. In the Spring, it issued two historic decisions on the question. They found two non-scheduled carriers in violation of the Civil Aeronautics Act because they were known to the public to be operating scheduled airlines over certain routes.

The CAB proposed a revision of section 292.1, promulgated safety regulations (Part 42 of the Civil Air Regulations) for non-scheduled carriers and required all such airlines to register with the CAB, file operating and traffic data at certain intervals and obtain certificates of operation from the CAA. This action gave the first adequate idea of the volume of these operations. In advance of the effective date of the filing of statistics, CAA obtained from its regional offices a survey to determine the extent of non-scheduled operations. In June, according to this CAA poll, there were 2,370 non-scheduled airlines, operating 5,529 aircraft. This compared to a bare two dozen scheduled carriers flying less than 1,000 planes. Route mileage of the non-scheduled lines was impossible even to estimate.

By September 1, approximately 500 non-scheduled lines had filed operating data with the CAB, 35 of which limited their activities exclusively to cargo. Despite this filing of information, general statistics still are sketchy. However, an analysis of the May and June operations of 252 non-scheduled lines emphasizing passenger traffic showed they carried only 1.6 percent of the passengers, and flew only 1.8 percent of the passenger miles recorded by certificated carriers.

The non-scheduled activity reached its zenith in 1946 and all indications by the end of the year were that it would be drastically curtailed in the future. For one thing, economic laws were operating against the non-scheduled lines as the CAB certificated new routes and these were put into operation by companies having stronger financial resources than most of the non-scheduled lines could acquire. Secondly, the CAB in December proposed further revision of section 292.1 which would rule passenger service on the part of non-certificated lines, which in fact, operate a scheduled service, requiring them to obtain an airline certificate of convenience and necessity of regular operation is to be conducted. Thirdly, in the same proposal, CAB set the non-certificated scheduled cargo common carriers apart, indicating that possibly certificates for this special service may be granted. Pending action upon applications for cargo service, these cargo operators may continue in a regularly scheduled cargo business. In this new approach to the problem, the CAB dropped the term "non-scheduled carrier," replacing it with the words "irregular carrier."

It had long been assumed that the non-scheduled carrying of passengers would diminish in volume and importance as the CAB decided its local service route cases and enlarged the systems of the trunk carriers, so that the greatest significance of the CAB's December proposal lay perhaps in its proposals regarding air cargo operations.

Prior to the war, scheduled airlines did little in the cargo field. They had no planes especially equipped for the job, their passenger and mail revenue was reasonably high, air cargo rates were too high to be competitive with surface shipments. Following the war, the availability of surplus military cargo aircraft and military pilots, combined with the scheduled lines' inability to meet all demands for passenger air travel, created the most favorable conditions for non-scheduled cargo operations and this activity mushroomed. Intensive study by a number of organizations during the war had delineated certain broad types of commodities which showed promise of being transportable by air at reasonable rates. These included perishable fresh fruits and vegetables, high-value, low weight items such as jewelry, items perishable because of a time element, such as newspapers and periodicals, or high style wearing apparel. Some articles, such as dresses, also indicated air cargo potentials because of a saving in time and money on packing. Dresses can be hung on bars in the plane.

The result was that non-scheduled operators, using planes which needed little conversion, moved right into a field that was ready and waiting to be developed. One all-cargo non-scheduled line, Slick Airways, flew a million miles in only three months. Slick, National Skyways Freight Corporation, and U.S. Airlines, were capitalized at a total of $10,000,000 and the three flew a total of 2,000,000 freight ton miles in the month of May, 1946. In contrast all the domestic scheduled carriers flew 5,556,896 express ton miles in the entire first quarter of 1946. By summer, the scheduled carriers were making efforts to protect their position in regard to freight. By August, there were eleven scheduled carriers in the cargo field, while in September, 1945, there had been only three. Even so, the nonscheduled operators had a substantial lead. In June, 1946, the scheduled carriers were flying 800,000 freight ton miles a month. But the non-scheduled lines were approximating 4,000,000 ton miles monthly.

All this could have but one result. By the end of the year, the scheduled, certificated airlines were making intensive effort to capture the cargo field. One, American Airlines, set up a Contract Air Cargo Division which was flying anywhere, under the contract with shippers. Another, and possibly the most important result of the non-scheduled activity was that rates began dropping. By late in the year, when the CAB began hearings on applications for all-cargo routes, rates ranged from 12 to 25 cents per ton mile, while before the war they had been from 70 cents up.

U.S. Commercial Plane Types. The backbone of the U.S. civil transport fleet during 1946 were the planes that made such a record during the war, the *Douglas DC-3* and *DC-4*, plus the *Lockheed Constellation*, all of which have been described in previous volumes of the YEAR BOOK. No plane of new design was put into passenger service during the year, although several *Douglas DC-6*'s—a larger version of the *DC-4* carrying fifty-two pas-

sengers—were turned over to two airlines for crew training preliminary to large-scale deliveries of the plane expected in 1947. There were however, several all-new planes that made their initial test flights during the year, the most important of which probably is the *Martin Model 2-0-2* which flew in mid-December. With deliveries to airlines expected to begin in January, 1947, this plane probably will be the first truly postwar transport to see service. This aircraft was described in the YEAR BOOK for 1946.

The Northrop Aircraft Corporation's *Pioneer,* one of the few planes designed specifically for cargo, also made its first test flight in the middle of December. This is an unconventional plane inasmuch as it is powered by three engines, a design last used in America more than ten years ago. It is an all-metal, full-cantilever high-wing monoplane powered by three Wright 744C7BA1 engines rated at 800 h.p. for take-off. Its gross weight is 25,000 lb. and useful load is 10,600 lb. As a passenger plane it carries 30 to 33. Span is 85 feet, length 60 ft., 7 in. and fuselage diameter 10 feet. It was designed especially for undeveloped parts of the world with primitive landing fields and consequently has two-wheeled, fixed landing gear with a tail wheel, rather than the retractable tricycle gear being used on most other new planes. Its specifications call for unusually short take-off and landing runs. Take-off with a full load is set at 700 ft., and landing at 750 feet. At 10,000 ft. altitude, its cruising speed is 185 m.p.h. and its range is 1,750 miles. Service ceiling is 21,000 feet. This promises to be a pioneer in new economies in operations. Another new plane which flew during the year, but merely as a working model for a later version was the *Consolidated Vultee Model 110* which will be succeeded by the *Model 240.* The *Convair 240,* which was near the test stage at year end, will carry 40 passengers and be powered by two Pratt and Whitney R-2800, 2,400 h.p. engines turning three-bladed reversible-pitch propellers. An all-metal, low-wing monoplane, the *Convair 240* has a span of 91 ft., 9 in., and a length of 73 ft. 4 inches. It has a pressurized cabin. Landing gear is the tricycle type with dual, co-rotating nose wheels. Cruising speed is set at 300 m.p.h., using special exhaust stacks on the engines to take advantage of the jet thrust given by the exhaust. Beech Aircraft Corp. expects to have ready in the Spring of 1947 a new feederline transport, the *Model 34,* which will be powered by four 350 h.p. Lycoming engines driving two propellers. Two engines in tandem will be installed in each nacelle which will be encased completely within the wing. The *Model 34* is an all-metal, high-wing monoplane with a "butterfly" tail which consists of two stabilizers fitted in a V-shape and no vertical rudder or fin. Carrying 22 passengers, the *Model 34* will cruise at 182 m.p.h. at 4,000 feet. It is designed to take off in 1,980 ft. and land in 2,100 feet. There were two other planes originally planned during the year for feederline use, but production plans for both had been dropped by the end of the year. These were the *Lockheed Saturn,* 14-passenger, two engine high-wing monoplane, and the *Boeing Model 417,* 20-passenger two-engine high-wing monoplane. Boeing's plans for production were officially classed as suspended, not discarded. The only other new plane announced during the year was the Curtiss-Wright Corp.'s *CW-32,* an all-cargo plane which is not expected to be test flown until 1948. It is designed for a gross weight of 80,000 lb. and will carry 25,000 lb. for 1,500 mi., or 20,000 lb. for 2,500 miles. *It is a high-wing monoplane, powered by four Wright R-1820 engine of 1,525 h.p. each, driving* reversible-pitch propellers. Cruising speed is 270 m.p.h. at 25,000 feet. Cargo compartment contains 4,000 cu. ft. in one compartment that is 59 ft. long, 9 ft. wide and from 7 to 9 ft. high.

Foreign Commercial Plane Types. Notable advances in returning to peacetime construction of commercial aircraft were made in Europe principally by England, France and Sweden. The British, with an annual aircraft export goal of approximately $64,000,000 were making the greatest efforts. Perhaps the most important plane to come from a British factory in 1946 was the *Bristol Freighter,* an all-cargo plane (although a passenger version is also being made). This is a high-wing monoplane, with fixed undercarriage and a nose section which swings open to provide access to the large cargo compartment. It is powered by two Bristol Hercules engines of 1,795 h.p. each. With a gross weight of 37,000 lb., it has a payload of 10,749 lb. It has a span of 98 ft. and length of 68 ft., 4 inches. Cruising speed is 153 miles per hour. Although its range at full load is short, 200–500 mi., it flew the Atlantic and undertook an extensive demonstration tour of North and South America. Another outstanding British aircraft that flew during the year was the *de Havilland Dove,* the successor to the tremendously successful prewar bi-plane *Dragon Rapide.* The *Dove* is an eight passenger low-wing, two-engine plane with retractable, tricycle landing gear. It is powered by Gipsy Queen 70 engines of 330 h.p. each, and has a speed of 200 m.p.h. and range of 500 miles. Span is 57 ft., and length 39 ft. 4 inches. Showing promise of being one of Britain's best commercial types is the *Handley-Page Hermes* series, *Mark I* of which is flying. This is a low-wing monoplane with single fin and rudder and powered by four Bristol Hercules 101 engines developing 1,800 h.p. each. The *Hermes I* has two-wheel retractable landing gear, but the *Hermes IV* will have tricycle retractable gear, and the *Hermes V* will have the same gear and Bristol Theseus turbine-propeller engines instead of reciprocating engines. Various passenger capacities are planned, ranging from 34 to 63. The *Hermes* has a span of 113 ft. and length of 82 ft., 2 inches. The *Hermes I* has a speed of 203 m.p.h., while the turbine-propeller version will have a speed of 297 m.p.h. Range varies from 1,200 mi. to 2,000 mi. in the several versions. Another British plane attracting a great deal of notice is the *Miles Marathon,* a high-wing monoplane with twin fins and rudders and tricycle, retractable undercarriage. The *Marathon* follows the British trend of four engines for even small planes, being powered by four de Havilland Gipsy Queen 71 engines of 330 h.p. each. It carries 18 passengers at a speed of 175 m.p.h. for a range of 500 miles. Span is 65 ft. and length 52 ft. 1 inch. There is also a turbine-propeller version of the *Marathon* being planned, to be known as the *M. 69.*

The British industry during 1946 had several notable phases. Most important, perhaps, was the decision made in the Spring to concentrate on the development of gas turbine engines with the objective of having all British aircraft—military and commercial—powered by jet or propeller-jet engines within five years. Primary reason for this was that the British feel that the reciprocating engine, particularly in the United States, has reached its ultimate development and that rather than attempt to produce reciprocating engines equal to those of the United States it is better to develop the type of engine which eventually will

succeed the piston engine. Corollary to this reasoning is that the British admit they do not have the personnel nor facilities to develop both types simultaneously, the method being pursued in the United States. Accordingly, the British were farther advanced in jet engines in 1946 than was the United States. By the end of the year they had flying what was termed a jet transport. In reality, this was a *Lancaster* four-engine bomber converted into a Lancastrian transport and powered by two piston engines and two Rolls-Royce Nene jet engines, each jet unit developing about 5,000 lb. static thrust. It flew at close to 300 m.p.h. on the jet engines alone. The British claimed equality with the United States—as far as quality was concerned—in light and medium transport types and in cargo planes. They acknowledged, however, a definite inferiority to the United States in four-engined transports. The main reason for this dated back to the war. During the war the British industry concentrated on the production of fighter and bomber aircraft. The United States industry alone continued with the production of transports for war purposes. At the end of November, the British aircraft and engine industry had orders on hand aggregating $222,959,750, of which $201,500,000 constituted orders from the military and naval air arms and national airlines.

French Commercial Types. The French aircraft industry, perhaps Europe's greatest, from a civil standpoint, before the war, suffered more grievously than that of any other nation, with many of its factories destroyed and little, if any, opportunity or incentive for planning postwar types. During 1946 it made a remarkable comeback and late in the year had a score of commercial types in various stages of planning or production. In general, these followed the design of proven U.S. types, but were under-powered by U.S. standards and consequently, below the U.S. mark in performance. Apparently the most promising French transport is the *Languedoc*, otherwise known as the *SE-161*, made by the southeastern factory of the nationalized aircraft industry. This plane is in production and the first several of twenty-five on order have been delivered to Air France, the national airline. Maximum passenger capacity is thirty-three. It is a low-wing monoplane powered by four Gnome-Rhone engines of 1,090 h.p. each. Cruising speed is 230 miles per hour. Span is 115 ft. and length is 94 feet. It has twin rudders and conventional retractable landing gear. Another plane that is in production is the *NC 702*, a combination passenger-cargo aircraft designed for operation off small fields in sparsely-settled countries. This is a two-engine, low-wing monoplane powered by 490 h.p. Renault engines. Cruising speed is 202 miles per hour. It is based on German designs. Planned by this same factory is a huge, high-wing monoplane designed to carry from 131 to 150 passengers. As a combination passenger-cargo plane, it could carry 32,600 lb. and seven passengers. It is to be powered by four 1,570 h.p. engines. Span is 144 ft., 6 in., and length 100 feet. Cruising speed is 199 miles per hour. The Southeast factory has under construction the *SE-2010*, a 60–108 passenger transport to be powered initially by four U.S.-made Pratt & Whitney Wasp Major engines each of 3,500 horse power. A low-wing monoplane, it has retractable, tricycle landing gear. Span is 161 ft. and length is 130 feet. Maximum gross weight is 154,500 lb. The cruising speed is 286 m.p.h. with a top speed of 354 miles per hour. Another plane in the *Languedoc* class that is flying is the *SO 30R*, a mid-wing monoplane with a capacity of 30 passengers and 4,300 lb. of freight at a range of 620 miles. Alternative arrangements can give a range of 2,110 miles. It is powered by two Gnome-Rhone 14R 33 engines each developing 1,730 horse power. Span is 84 ft., and length is 60 ft., 6 inches. Cruising speed is 255 m.p.h. with a maximum speed of 342 miles per hour.

Sweden's aircraft industry during the year produced only one transport type aircraft, but that one was extremely interesting coming from an industry that had not been prominent in transport manufacturing. The airplane is the *Scandia*, made by Svenska Aeroplan A.B. In configuration it resembles the American *DC-3*, but it contains some advanced engineering features and indicates very high performance. It is a low-wing monoplane with tricycle, retractable landing gear and single tail fin. It carries 24 or 32 passengers from 715 to 960 mi. at a cruising speed of 220 miles per hour. It is powered by two Pratt & Whitney R-2000-13 engines each of 1,450 take-off power. Span is 91 ft., 8 in. and length 69 ft., 4 inches. The *Scandia* flew for the first time in November and was reported to have met all specifications. It was designed to meet requirements laid down by the U.S. Civil Aeronautics Board, and to conform to recommendations of the Air Transport Association, the trade association of the U.S. airlines.

The Aircraft Manufacturing Industry. Overall, the United States aircraft manufacturing industry (including manufacturers of engines, propellers, accessories and parts) in 1946 achieved a much better production record than had been expected. The first six months of the year were practically nonproductive. The industry had a more difficult reconversion problem than any other with the possible exception of shipbuilding. From the world's greatest industry (in 1944), it shrunk to one-fourth that size by the end of 1945 and was still being contracted as 1946 opened. The first six months of the year was a readjustment period; settling terminated war contracts, tooling up for civilian models, arranging for permanent production facilities (about 90 percent of war-built plants were owned by the Government), adjusting administrative, engineering and production staffs to peacetime requirements, and establishing sources of supply in non-priority market. While most aircraft companies were not directly affected by the wave of strikes that swept the country in the first four months of 1946, they suffered as much because the strikes cut off supplies. One of the gravest shortages, that persisted for most of the year, was in aluminum. For this item, the aircraft industry was bidding against general industry and in particular against the home-building industry which had full Government backing. Aluminum production was not adequate to meet all demands in any event, and when the aluminum industry was affected both directly and indirectly by strikes, airplane builders were far down on the list to receive deliveries for many months. Another critical shortage was in fabric, caused not so much by strikes as by price ceiling difficulties and an unprecedented demand for clothing. This shortage of fabric affected the manufacturers of personal-type aircraft who were expected to lead the aircraft production parade.

As a tide-over measure, airplane builders accepted subcontracts for nearly every kind of item, or went into prime production of many items far afield from aircraft. Among products manufactured by the industry in 1946 were small boats, soft drink vending machines, metal burial caskets, industrial jacks, plastics, motor scooters, automotive equipment and washing machines. Several manu-

facturers experimented with pre-fabricated housing, but little came of it.

By mid-year the industry was practically retooled, the plant situation being straightened out, and production began to creep toward record peacetime heights. However, the industry already was giving evidence that during 1946, at least, its profits would derive chiefly from refunds on excess profits taxes paid during the war years. That item dominated the financial reports of the aircraft companies throughout the year. Only one major company in 1946 made a profit before allowing for excess profits tax refunds and carry-back credits. As of June 30, 1946, total current assets of the 21 major aircraft and aircraft equipment companies were $975,000,000, and current liabilities $420,000,000 for a net working capital of $555,000,000. While this was an all-time high, even exceeding the working capital of the peak war year of 1944, and some $9,000,000 above the previous record figure (1945) of $546,000,000, this did not give a true picture of the industry's financial position. The weak spot was the extremely high inventory figure of $273,000,000, which was 28 percent of all current assets. This was a higher ratio than generally pertained in wartime when the industry had an ever-expanding market and assurance of sales and final payment. This high rate of inventories, while not peculiar to the aircraft industry during the year, was a source of considerable worry and actual financial hardship for several companies which passed into receivership during the year despite having substantial orders on their books. They over-extended themselves in acquiring material and in retaining large working forces to push work to near-completion only to find too late that lack of parts prevented deliveries and, consequently, payment for their expenditure.

The progress of the industry throughout the year is shown by the production figures. In January, total production was 1,321 planes, valued at $21,368,326, of which 94 planes were for the Army or Navy. In June, monthly production was up to 3,489, with a value of $32,440,370. In this month, military and naval production was very low, a total of 60 planes, which reflected chiefly, the shortage of aluminum and of jet engines (due to strikes) for Army *Lockheed P-80* fighters which had the largest procurement schedule at that time. The full year's production, with the months of November and December estimated, was expected to be 36,580 aircraft, valued at approximately $367,000,000. Of this volume, 1,400 were military and naval planes, 450 transport planes, and 35,000 personal-type aircraft. Including engines, propellers, parts, accessories and military and naval research and development work, total income for the aircraft industry in 1946 was approximately $1,000,000,000. This compares with a 1945 gross revenue of about $10,000,000,000 but a prewar (1939) income of $280,000,000. Employment in the industry in December, 1946, was slightly more than 161,000, a substantial increase since the start of the year, but far below the wartime peak of more than 2,000,000. The industry's backlog of orders on hand on June 30 was 51,270 aircraft valued at $1,054,927,503, of which 47,657 planes valued at $411,542,031 were civilian. By October, this backlog was 40,662 planes valued at $1,146,061,106 and was expected to remain fairly close to those figures for the remainder of the year. In October, the civilian backlog was 37,883 planes valued at $465,013,114. The contrast between the June and October figures is a further reflection of the industry's development during the year. While the number of planes on order declined, the value of them increased. There were three main reasons for this: one, the letting of military contracts for bombers—small quantity, but high value; two, increased orders for transport planes; three, a great decline in orders on hand for personal type aircraft combined with increasing sales of three-and four-place personal aircraft rather than two-place which had constituted most of the backlog in the summer. As was true with most other consumer items, personal plane orders contained many duplications. As production increased, these duplications were weeded out. In the last quarter of the year, personal plane deliveries slumped somewhat due to three factors: first, the production of two-place planes for use in training under the Servicemen's Readjustment Act (see below) began to catch up with the demand; second, a seasonal slump in the purchase of planes in the northern states where winter provides poor flying weather; third, a decrease in production of two-place planes as manufacturers prepared for volume production of the larger three- and four-place aircraft.

While the actual figure is restricted for reasons of military security, it is estimated that during 1946 the industry had research and development contracts from the Army and Navy totaling about $400,000,000. This, combined with military and naval purchases of aircraft and parts, indicates the level of production based upon government contracts.

In 1947, it is expected that deliveries of commercial transports will greatly increase. How much national defense expenditures will be decreased, and how this will affect the aircraft industry is problematical. But both the Army and the Navy are planning expanded research programs and in addition are undertaking a joint program of industrial preparedness which will result in the placing of contracts aggregating approximately $70,000,000 with the aircraft industry alone.

The industrial preparedness program is being formulated to apply to all industries, but inasmuch as the aircraft industry was the largest during the past war, it is being used as the laboratory for the plans. In charge of this program is the Army-Navy Munitions Board which during 1946 was headed by Richard R. Deupree. The purpose of the program is to make possible in an emergency very rapid expansion of aircraft production facilities for the most modern types of planes and equipment. It is based on the fact that both before and during the war the average time from design of an airplane to peak production was about three years. The aircraft industry attained peak production in 1944, nearly three years after the United States went to war, and that was on production of planes that had been designed before December 7, 1941. The Army, Navy and the aircraft industry are convinced that should war come again the United States will not be given that much time to prepare. Under the industrial preparedness program, twenty-two aircraft manufacturers in 1946 were given small contracts to submit ideas on production planning to the services. When these ideas have been studied, further contracts will be let for the implementation of the most likely proposals. The general outline of the industrial preparedness program as it developed in 1946 is that a small number of plane types will be selected as those which would be most efficient in any war that should occur within the span of a few years. Next, a small procurement order will be placed for those planes. In addition, out of the industrial preparedness appropriation will come money for the manufacturer

to use in formulating plans for mass production of those planes: drawings, assurance of sources of supply, plans for sub-contractors, etc. A pilot line of mass production special tools would also be financed. This industrial preparedness plan will be revised as often as deemed necessary, perhaps every year. It could mean a complete change of plans annually, so that the $70,000,000 which is being asked for the program for the fiscal year beginning July 1, 1947, could constitute merely the beginning of a much larger annual expenditure in the aircraft industry.

Army and Navy Aviation. The stress laid on industrial preparedness by the Army and Navy during 1946 highlighted the over-all emphasis on research and development. Procurement schedules called for delivery of approximately 1,600 aircraft of all types during the year. Even this modest program (as measured against the Air Coordinating Committee's recommendations for the annual purchase of a minimum of 3,000 new planes) was not met, with deliveries approximating 1,400 aircraft.

The drop in procurement was part of a general trimming down of service aviation from a war to a peace basis. Gen. Carl Spaatz succeeded Gen. H. H. Arnold as commanding general of the Army Air Force. In March, the Army Air Forces announced that its peacetime force would be approximately 400,000 men, in 70 groups, and disclosed a command structure comprising three major commands: the Strategic Air Force, headed by Gen. George C. Kenney; Tactical Air Command, Lt. Gen. Elwood R. Quesada; Air Defense Command, Lt. Gen. George E. Stratemeyer. The Air Transport Command during the year was greatly reduced in the extent of route miles operated.

The appropriation for the Army Air Forces for fiscal 1947, which began July 1, 1946 was $1,199,500,000, and for the Bureau of Aeronautics of the Navy was $805,760,000. Of these amounts, the AAF could use $401,900,000 for the procurement of new aircraft, and the Navy $310,800,000. In addition, research appropriations for the two services were: Air Forces $184,200,000; Bureau of Aeronautics, $100,600,000

With military and civilian personnel being cut in both the Army and Navy air arms, the only expansion was in research and development, particularly in the fields of jet and other new propulsive devices for aircraft, and guided missiles. To coordinate this research to avoid duplication and make the best possible use of research facilities and personnel, there was established the Joint Research and Development Board, chairmanned by Dr. Vannevar Bush (wartime head of the Office of Scientific Research and Development), and consisting of Army and Navy representatives, and responsible to the Secretaries of War and Navy. The chief need for coordination was in the realm of guided missiles. The Navy had its own program, coordinated within the department by the various bureaus, and the War Department also had a separate program undertaken at first by the Ordnance Department and with the Army Air Forces doing similar work. This situation was finally resolved by a directive making the Air Force primarily responsible for guided missiles, with other branches of the Army to continue their work under AAF supervision.

The actual state of the development of guided missiles in 1946, from a performance standpoint, was a carefully guarded secret. However, there were several very strong indications that great strides have been made. One was the announcement by the Navy that a radar-directed gliding bomb (the "Bat") was being put into operational service. This was a wartime development and was used sparingly against the Japanese. While acknowledged as rudimentary, it is now a standard Navy weapon in order to familiarize naval personnel with guided missiles. In appearance resembling a small airplane, the "Bat" is 12 ft. long with a 10 ft. span. It carries one 1,000 lb. bomb and although having no propulsive machinery can attain a speed of about 320 m.p.h. in its glide. It can be launched from 10,000 ft. altitude nine miles from the target. It is carried under the fuselage of a fighter plane or under the wing of a bomber and its radar, in the nose of the "Bat," piped into the mother plane. An operator in the mother plane fixes the "Bat's" radar on the target before launching the weapon. It will follow the target through any evasive maneuver.

The establishment by the Army Air Forces of the First Guided Missile Experimental Group, in January, 1946, furnished another indication of the advance made in guided missiles. This group, normally based at Eglin Field, Florida, participated in the revealing tactics during the atom bomb tests at Bikini where pilotless Navy planes carried photographic equipment and other recording apparatus over the target to record effects of the blasts. It also conducted a flight of two pilotless *B-17* bombers from Hawaii 2,400 miles to the Army Air Base at Muroc, California. Operators in mother planes, flying from 200 ft. to three miles away from the "drones," controlled the planes through remote control radio.

Throughout the year, the Army and Navy cooperated in the test firing at White Sands, New Mexico, of German V-2 rocket-powered bombs, the parts of which had been captured and reassembled in this country. One of these rockets attained a new altitude record of 104 miles. These experiments were to test new fuels for rocket engines, control devices for guided missiles and to explore the upper atmosphere. To obtain information on this latter aspect, the head of the V-2's used were filled with delicate recording instruments which by radio impulses transmitted the information to devices on the ground. The operation of this system, known as "telemetering," was one of the Navy's principal tasks at White Sands.

Despite the solid accomplishments during the year in the field of guided missiles and pilotless aircraft, perhaps the most significant event in military aviation in the year—if not the most significant in the entire sphere of aeronautics,—concerned a piloted aircraft: the first flight on December 9 of the *XS-1*, powered by a rocket engine. The *XS-1* was designed as a research plane at supersonic (faster than sound) speeds, and was built by the Bell Aircraft Corp., of Niagara Falls, New York, for the National Advisory Committee for Aeronautics at the behest of the Army Air Forces which furnished the funds and which will take over the aircraft when it has completed tests for Bell and the NACA. It was designed to achieve a speed of 1,700 m.p.h. at an altitude of about 80,000 feet. In its initial flight, the plane was launched in mid-air from an especially-equipped *B-29* bomber and Bell test pilot Chalmers Goodlin deliberately held down the speed to about 550 m.p.h., remaining aloft for approximately 19 minutes during which time he alternated between gliding and powered flight and used full power of the rocket engine for barely one second. Testing is scheduled to proceed gradually so that it will perhaps be the summer of 1947 before a deliberate attempt is made to exceed the speed of sound.

The *XS-1* resembles a very small conventional fighter in some respects. It has a wing span of 28 ft. and a length of 31 feet. It is a mid-wing monoplane with extremely thin wings slightly tapered to square wing tips. The fuselage is roughly cigar-shaped with the cockpit contained completely within the fuselage, and the cockpit windows shaped so that there is no break in the smooth surface of the fuselage from nose to tail. Designed to withstand a force 18 times the pull of gravity, the wings are formed of skin machined from solid aluminum stock to one-half inch thickness at the roots and one-eighth inch thickness at the tips. The empty weight of the *XS-1* is 4,892 lb. and the gross load for its first flight was slightly more than 13,000 lb. The wing loading is approximately 100 lb. per square foot.

The *XS-1* is powered by a rocket engine containing four combustion chambers each developing 1,500 pounds of thrust. The pilot throttles the plane by turning on or off these combustion chambers or cylinders so that he can increase or decrease power only in units of 1,500 pounds of thrust. At full power, the engine develops 6,000 pounds of thrust. This engine was developed by Reaction Motors, Inc., Dover, Delaware, for the Bureau of Aeronautics of the Navy Department and was furnished to Bell at the request of the Air Forces. For its power it is probably one of the most compact engines ever built. It is contained completely within the tail end of the fuselage, and is 56 in. long, with a diameter of 19 in. and a dry weight of 210 lb. The engine, designated by the Navy as 6000C4 uses liquid oxygen and alcohol as fuel. This is forced into the cylinders under pressure supplied by tanks of compressed nitrogen or helium. This system increases the weight the plane must carry because of the weight of these tanks, and of the fuel tanks which also must resist great pressure. Future rocket planes likely will have a fuel system whereby pressure is obtained by use of a turbo-compressor, thus reducing weight. The fuel in the combustion chambers of the 6000C4 engine is ignited by the explosion of a smaller rocket which is fired by means of a spark plug. After this, firing is spontaneous.

While the *XS-1* was pointing the way toward an entirely new type of aircraft, the Army and Navy continued development of both reciprocating and jet engine planes. One unofficial tabulation in November, 1946, listed 50 types of aircraft on order from 22 manufacturers. During the year, the two services announced details on about 30 new aircraft. Most important of these were:

McDonnell Aircraft Corp. *FD-1 Phantom*: Navy carrier-based fighter powered by two Westinghouse 19XB axial-flow jet engines placed in the wing roots. Each is rated at 1,360 lb. thrust. Span is 40 ft. and the wings fold for stowage aboard ship. Length is 37 ft., 2 inches. Service ceiling is over seven miles, range is 1,000 mi. and speed is in excess of 500 miles per hour. The gross weight is slightly under 10,000 lb.

The Glenn L. Martin Co. *AM-1 Mauler*: Single engine Navy dive or torpedo bomber powered by Pratt & Whitney Wasp Major engine developing 3,000 h.p. turning a Curtiss Electric four-bladed propeller. Span, 50 ft., length 41 ft., 8 inches. Gross weight is 19,500 lb. It can carry 4,000 lb. of bombs or rockets and is armed with four 20 mm. cannon. It has a speed in excess of 350 m.p.h. and a range of more than 1,700 miles.

Douglas Aircraft Co. *AD-1 Skyraider*: This is the same class of plane as the *AM-1*, a new type for the Navy which supplants the former *BT* type. It is also a dive or torpedo bomber which can carry 6,000 lb. of bombs or rockets, torpedoes or mines. It carries five-inch rockets and has additional armament of 20 mm. cannon. It employs a new type of dive brakes which extend like fingers from the underside of the fuselage.

Consolidated Vultee Aircraft Corp. *XP-81*: Experimental Army fighter powered by one General Electric-Allison TG-180 jet engine and one General Electric TG-100 propeller-turbine engine. Span, 50 ft., 6 in.; length 44 ft., 8 in.; height, 13 ft., 6 inches. This is the first announced use in an aircraft in this country of the propeller-turbine type of power plant in which the turbine of a jet engine turns the propeller shaft. The *XP-81* has the propeller-turbine engine in the nose with the air intake around the propeller hub. The orthodox jet engine is mounted in the fuselage aft of the cockpit with the air intake achieved through scoops atop the fuselage behind the cockpit. The jet nozzle is in the tail of the aircraft under the tail assembly. Speed of this plane is more than 500 m.p.h. Gross weight is 19,500 lb.

Northrop Aircraft Inc. *XB-35 Flying Wing*: One of the most radical types of aircraft ever built and successfully flown, this is a tailless bomber for the Army Air Forces, with a gross weight of 162,000 lb and powered by four Pratt & Whitney Wasp Major engines each rated at about 3,500 h.p. driving four eight-bladed contra-rotating Hamilton Standard pusher propellers with a diameter of 15 ft. 4 inches. The center section of the wing is 53 ft., 1 in. wide and the wing has an area of 4,000 sq. feet. This aircraft has no tail surfaces; controls, in addition to the ailerons, consist of "elevons," at the wing tips which fulfill much of the same purpose as rudders and elevators. Cockpit and accommodations for the crew of 15, as well as the engines, are all contained in the mammoth wing. The plane has tricycle, retractable landing gear It was designed for a range of 10,000 mi. and bombload of 10,000 lb. Its empty weight is 89,000 lb and maximum overload gross weight is 209,000 lb. The plane made its first flight in May, 1946, and was still undergoing its acceptance tests in December. Meanwhile, the AAF had contracted for 14 other Flying Wings. Northrop is also at work on a jet-powered version, designated the *XB-49*.

Douglas Aircraft Co. *XB-43*: This was the first jet-propelled bombing plane built. It is similar to the *XB-42 "Mixmaster"* bomber which is powered by two liquid-cooled reciprocating engines buried in the fuselage and driving contra-rotating propellers at the tail. The *XB-43* is powered by two TG-180 jet engines each developing about 4,000 lb. thrust. It has a span of 71 ft., 2 in., length of 51 ft., 6 in., speed in excess of 500 m p h., and range of 1,400 miles

Boeing Aircraft Co. *B-50*: This is a development of the famous *B-29 Superfortress* Army bomber It has the same dimensions as the *B-29* but is powered by four Pratt & Whitney Wasp Major engines of 3,500 h.p. each in contrast to the 2,200 h.p. Wright engines of the *B-29*. Its speed is 425 m p.h., as against the 360 m.p.h. speed of the *B-29*. The increased power and engineering changes have added 20,000 lb. to the 120,000 lb. gross weight of the *B-29*.

Chance Vought Aircraft division of United Aircraft Corp. *XF-5U-1*: This ranks with the *XS-1* and *XB-35* as an outstanding design and engineering achievement. It is an experimental Navy fighter plane with a nearly round all-wing configuration, and twin rudders at the rear perimeter. It is powered by two Pratt & Whitney Twin Wasp engines of 1,350 h p each These engines are buried in the wing and through transmission gears drive special, four-bladed propellers placed on the outer extremities of the wing. The most startling feature of the *XF-5U-1* is that it can hover in a vertical position on its propellers, a performance never before achieved with a fixed-wing aircraft. It is designed for speeds ranging up to 550 m p h., depending on the engine installation. The *XF-5U-1* was scheduled to make its test flight in September, 1946, but the date has been postponed probably until the spring of 1947 Its performance characteristics were proven in 1942 by the *V-173*, an aircraft of the same configuration but with low-powered engines.

Consolidated Vultee *XB-36*: The largest land-plane now flying, this is an Army bomber of which the AAF has ordered 100. It has a span of 230 ft., length of 163 ft., a tail fin 47 ft. high, and a gross weight of 278,000 pounds It was designed to carry 10,000 lb. of bombs 10,000 miles. It is powered by six Pratt & Whitney Wasp Major engines of 3,500 h p. each, driving Curtiss Electric 19 ft three-bladed pusher propellers in the trailing edge of the wing. It carries a 15-man crew. It is a high-wing monoplane with the wing located about half-way between nose and tail. Top speed is set at about 330 miles per hour The first flight of the *B-36* was made in the summer of 1946 and acceptance tests were to be completed in December.

Edo Aircraft Corp. *XOSE-1*: Navy seaplane for operation off cruisers and battleships for scouting or reconnaissance. A single-engine low-wing monoplane, it is powered by a 550 h.p. Ranger engine. It has a speed of more than 200 m.p.h. and a range of 1,000 miles.

Lockheed Aircraft Corp. *XR-60 Constitution*: The largest transport land plane now flying, this was designed as a Navy transport. Two planes have been built, the first of which made its test flight in November The span is 189 ft., length is 156 ft., and gross weight is 184,000 lb. It can carry 180 passengers and has a range of 6,000 mi. and speed of 300 miles per hour. The *Constitution* is a mid-wing monoplane with a two-deck hull, and is powered by four Pratt & Whitney Wasp Major engines developing

8,500 h.p. each. While it is unknown whether there will be any immediate development of this plane as a commercial transport. It is built so that it can easily be converted to jet engines when such an engine of suitable power is built.

Fairchild Engine & Airplane Corp. *XNQ-1*: Navy primary trainer, the first primary trainer built since the end of the war and the first with retractable landing gear and controllable-pitch propeller. Of all-metal construction, it is a low-wing monoplane with two seats arranged in tandem under a bubble canopy, also a departure in planes of this type. It is powered by a nine-cylinder 320 h.p. Lycoming engine. Gross weight is 3,700 lb., span is 41 ft. 5 in., length is 27 ft., 11 inches. It has a top speed of 170 m.p.h. and climbs at 1,000 feet per minute. This is also the first airplane to contain the standardized cockpit arrangement of instruments which was worked out jointly by the Navy, Army and the British Royal Air Force for installation in every single-engine aircraft of the three services.

North American Aviation, Inc. *XFJ-1*: Navy jet-propelled fighter powered by a TG-180 engine. This is a low-wing monoplane with the air intake for the engine in the nose and a straight-through flow to the jet nozzle in the tail under the elevators. The horizontal tail surfaces have a 10 degree dihedral in order to get the surfaces out of the air shock wave from the wings. It has tricycle landing gear and droppable fuel tanks on the wing tips. Other than listing the speed as more than 500 m.p.h., the Navy has released no details on this airplane.

Chance Vought *XF6U-1 Pirate*: Navy jet-propelled fighter to succeed the famous *F4U Corsair*. This is a low-wing monoplane constructed of a new material originated by the manufacturer and designated "Metallite." It consists of two sheets of high-strength aluminum alloy with a balsa wood core. This is claimed to give a smoother, harder finish than usual aircraft metal, and to be stronger and less susceptible to skin wrinkles that sometimes occur in ordinary metals at high speeds. The Pirate is powered by a Westinghouse jet engine of new design and beyond stating its speed at better than 500 m.p.h., the Navy has released no performance or specification details.

Martin *XP4M-1*: Navy patrol bomber of high-wing design powered by two Wasp Major reciprocating engines and two General Electric-Allison J-33 jet engines. The airplane has two engine nacelles, each containing one reciprocating engine and one jet engine. Only details that have been released are speed of 398 m.p.h., gross weight of 81,887 lb. and service ceiling of 16,400 feet.

Consolidated Vultee *L-13*: An Army liaison plane, the first aircraft of this type to be built since the end of the war. It is an all-metal high-wing monoplane that ordinarily carries three persons but can carry up to six. It has a span of 40 ft., 5 in., length of 31 ft., 9 in., and height of 8 ft., 5 inches. With a 245 h.p. Franklin engine, it has a cruising speed of 92 m.p.h., a top speed of 115 m.p.h., range of 368 mi., service ceiling of 15,000 ft., and gross weight of 2,900 lb. It has folding wings so as to simplify transportation and stowage, and takes off in a run of only 230 ft., and lands at 43 m.p.h. in a distance of 227 feet.

Republic Aviation Corp. *XP-84 Thunderjet*: Army Air Forces jet fighter successor to the company's famous *P-47 Thunderbolt* fighter of the war. It is a low wing fighter of very clean lines, with the air intake in the nose and a straight-through flow to the jet nozzle in the tail. Powered by a General Electric Allison J-35 jet engine of approximately 4,000 lb static thrust, it is perhaps the fastest airplane now flying for the AAF, unofficially being credited with 619 m.p.h. when stripped down and especially prepared for a record test run. Span of the *P-84* is 36 ft., 10 in., and length is 36 ft., 6 inches. Three experimental planes were ordered by the AAF, followed by a service test order of 25 *YP-84*'s, and finally an order for 100 production models.

Private Flying. Despite the tremendous expansion in air transport during 1946, and the notable achievements in research and military aircraft, many observers took most satisfaction from the development of private flying. This was completely discontinued during the war. The only training was of military and naval pilots; the only airport construction was for military purposes; private flying was forbidden for most of the war and when and where it was not, gasoline rationing effectively grounded personal aircraft. All during the war period, both government and private aeronautical agencies stated that after the war the greatest expansion in aviation would be in the field of private flying. The year 1946 gave some evidence to confirm that belief. During the year the Civil Aeronautics Administration licensed more than 100,000 pilots and nearly 50,000 aircraft. This brought the number of pilots at the end of the year up to an estimated 400,000, and certificated aircraft to 85,000, compared with 296,895 pilots and 37,789 aircraft in 1945. In addition the CAA issued 170,000 student pilot certificates, more than double the number in 1945.

The great increase in certificated pilots could be attributed mainly to two reasons: the return to flying of pilots who dropped out during the war; and the obtaining of civilian licenses by members of the Army and Navy who learned to fly during the war. The real index of interest in flying, therefore, was the student pilot licenses issued. The tremendous jump in these was largely due to the amending in January, 1946 of the Servicemen's Readjustment Act, commonly known as the G. I. Bill of Rights, to make it possible for a veteran to learn to fly at government expense. It required several months for the Veterans Administration to promulgate its rules and regulations covering this training, but nevertheless by summer the flying schools of the country were jammed with veterans. It was estimated that total enrollment for all aviation courses, including mechanics, was more than 100,000.

Both training and the resumption of private flying was aided by the availability of surplus aircraft. In two years ending September, 1946, the War Assets Administration and its predecessor agencies in the disposal of surplus planes had sold 20,700 aircraft of the type suitable for private flying. The production of new personal planes was another factor responsible for the growth of this type of aviation during the year. In 1945, personal plane manufacturers turned out 2,047 planes; in 1946, production was estimated to be 35,000, a truly amazing increase. For most of the year, there were 29 manufacturers with 37 different models of strictly personal aircraft in production. Most of these, and most of the planes sold, were two-place monoplanes differing very little from prewar designs. About 90 percent of the two-place aircraft sold during the year went to schools to be used for training purposes. In October, this training school market began to weaken as operators' requirements were filled. Weather also began to curtail flying. Sales of personal aircraft, which actually were chiefly two-place aircraft, slumped badly in November. Dollar value did not decline in the same proportion, indicating that sales of three- and four-place aircraft were beginning to increase. This is the type of plane on which most manufacturers are planning to concentrate, and despite the high cost of such a plane (ranging from $5,500 to nearly $8,000), it is expected that 1947 sales will continue to increase.

To keep up with the boom in private flying, the CAB and CAA during the year drastically amended several regulations in order to simplify the obtaining of a flying license and title of an aircraft. Increased authority was given to the CAA regional offices, and private flying flight examiners were authorized to issue student pilot permits, rather than requiring that the student apply to a CAA office. The CAA was instrumental—with private aviation organizations—in pushing through to enactment by Congress the first Federal-aid Airport Act under which the Federal Government will share with states, municipalities, or other public agencies the cost of constructing new airfields or enlarging existing fields. The number of airports listed by the CAA during the year fluctuated around 4,000 and there has been general agreement for two years that the minimum number necessary to serve the country is 6,000. More than half of

these would be small fields suitable for use by private flyers. Under the terms of the act, the CAA is permitted to spend $500,000,000 over a seven-year period. The initial appropriation for the fiscal year ending June 30, 1947, is for $45,000,000, of which $30,822,750 will be used for construction purposes within the continental limits of the United States. In January of 1947, CAA was to submit to the Congress a plan for using these funds and construction was expected to get underway in the Spring of 1947.

The passage of this act, in its potentials, at least, was one of the major aeronautical developments of the year. The only similar program in the field of transportation on which the Federal Government has ever embarked is the Federal-aid Highways grant which began in 1921. The successive highway acts are responsible for the network of roads in this country and widespread use of motor vehicles. The lack of sufficient number of airports has been considered a serious detriment to aviation expansion and the Federal-aid Airport Act largely can eliminate this impediment. Expenditures under it are not limited to private flying fields. Large cities can also obtain financial assistance from the Federal Government for the improvement or construction of airports.

Helicopters. The year 1946 saw the helicopter that was still in the experimental stage when war began, achieve commercial utilization for the first time. This vehicle is revolutionary as a form of transportation. It can ascend and descend vertically; hover in the air; proceed at any speed forward, backward, or sidewise up to its top speed; and can accordingly adjust itself to any traffic condition; is entirely free from the necessity of landing on conventional landing runways; and can land with power off in a very few feet of open space through the operation of the principle of autorotation. This principle means that when the power goes off the rotor it disengages automatically from the rotor and continues to rotate, thus affording support to the vehicle as it descends toward the ground. The Civil Aeronautics Board gave it a measure of recognition early in the year when it issued Part 06 of the Civil Air Regulations, which set up the standards of airworthiness of helicopters. Then in March the CAA issued the first commercial helicopter license in history, to Bell Aircraft Corporation's *Model 47*, a two-place rotorcraft. Later, Sikorsky Aircraft division of United Aircraft Corp. was issued a license for its *Model S-51*, a four-passenger helicopter. Bell and Sikorsky participated separately in a number of experiments to explore some of the many uses for the machine, and by the end of the year there was a growing volume of work such as crop-dusting, fire-spotting, utility line patrolling, being done by helicopter. In September, the world's first commercial helicopter service was formed in Philadelphia under the name of Helicopter Air Transport to render service by helicopter under contract in a variety of ways. The Post Office Department sponsored helicopter mail delivery tests at Los Angeles, New York, and Chicago. A CAB examiner recommended the issuance of a certificate for helicopter mail and passenger service in the area surrounding Cleveland, Ohio. By the end of the year, Bell alone had sold nearly $1,000,000 worth of helicopters. Principal machines in use or planned during 1946 were:

Bell Model 47: Two-place helicopter powered by a Franklin 175 h.p. motor turning a two-bladed rotor with a diameter of 33 ft., 9 inches. It carries a useful load of 612 lb. and cruises at 80 m.p.h. with a range of 200 miles.

Bell *Model 48*: Five-place helicopter powered by a Pratt & Whitney 450 h.p. engine turning a two-bladed rotor of 47 ft. 5 in. diameter. It has a useful load of 1,445 lb., a high speed of 125 m.p.h. and range of 300 miles. As an all-cargo machine, it can carry from 1,000 to 1,200 lb. It is expected that this helicopter will be certificated early in 1947.

Sikorsky Model S-51: Four-place helicopter powered by a Pratt & Whitney 450 h.p. engine turning a three-bladed rotor of 48 ft. diameter. It has a useful load of 1,250 lb. and cruises at 85 m.p.h. with a range of 245 miles.

Sikorsky Model S-52: This is a two-place helicopter, Sikorsky's newest machine which, at the time of its announcement in November, had not yet flown. It has the first all-metal rotor blades. It is powered by a 178 h.p. Franklin engine and carries a useful load of 650 lb. at a speed of 90 m.p.h. for a range of 310 miles.

McDonnell XHJD-1: This was built for the Navy and is the first twin-engine helicopter to fly. Its two Pratt & Whitney 450 h.p. engines are mounted midway on the outriggers which extend from each side of the fuselage and bear the two 40 ft. diameter rotors. As these rotors rotate in opposite directions, there is no need for anti-torque rotor at the rear, such as is used on Bell and Sikorsky helicopters.

The *XHJD-1* except for the outriggers and rotors is about the same size and shape as a conventional medium transport plane. It has two main wheels and tail wheel for landing gear and a vertical fin at the tail to aid stability. It carries a useful load of more than 8,000 lb. and cruises at 100 miles per hour. Through a clutch system, both rotors can be turned by a single engine in case of one engine's failing. As a transport, or in a commercial version, the McDonnell helicopter will carry a crew of two and ten passengers.

Kellett Aircraft Corp. *KH-2* This is a planned commercial version of an Army model, the *XR-10* and, like the McDonnell craft, has two engines. Its two rotors, however, are synchronized and inter-mesh. It has a conventional, transport-type fuselage with triple tail fins and accommodations for 10 passengers. As an alternate, it can carry one ton of cargo. It is powered by two 550 h.p. Continental engines and cruises at 90 m.p.h. for a range of 180 miles.

Records. During the year a number of new records were established, mainly by the Army and Navy which set out to measure the result of wartime aeronautical progress against existing performance marks. They succeeded in all main attempts but one: the world's absolute speed record. This had been set in 1945 by a British Gloster *Meteor* jet-propelled fighter plane at 606 miles per hour. On September 7, 1946, this mark was broken with another *Meteor*. Group Captain Edward M. Donaldson attained a maximum speed over a three-kilometer course of 615.778 miles per hour. At about the same time, the Army Air Forces was conducting tests at Muroc Army Air Base with a *Republic P-84* jet fighter, but the maximum speed it was able to reach was about 611 m.p.h., although an unofficial speed of 619 m.p.h. was claimed for it.

While it did not establish a record, the flight in October of a *Boeing B-29 Superfortress* from Hickam Field, Hawaii, over the Arctic to Payne Field, Cairo, Egypt, was a notable achievement in navigation and flying. Commanded by Col. Clarence S. Irvine, the *B-29* flew at an average speed of 240 m.p.h., possibly the fastest ever made for such a long flight. Much valuable information for both the Air Forces and commercial airlines was collected on meteorology, navigation, and the behavior of radio in the Arctic region. Records certified by the National Aeronautic Association, or the Fédération Aéronautique Internationale during the year 1946, were:

Altitude: 14,603 meters (or 47,910.009 feet) Maj. F. F. Ross, pilot; Lt D. M. Davis, co-pilot; Lt. L. B Barrier, Lt. C. B. Webster, F/O Pamphille Morrissette, Sgt. W. S. George, crew: USAAF, Harmon Field, Guam, M.I., May 15, 1946. (*Boeing B-29* monoplane, 4 Wright R-3350-23A 2,000 h.p. engines.)

Maximum Speed: 991 km.p.h. (615.778 m.p.h.) Group Captain Edward Mortlock Donaldson, D.S.O., A.F.C., Great Britain, Gloster *Meteor IV EE 549*, two Rolls-Royce "Derwent" engines, at Littlehampton, September 7, 1946.

Distance, Airline: 18,081.990 kms (11,235.600 miles) Comdr. Thomas D. Davies, USN; Comdr. Eugene P. Rankin, USN; Comdr. Walter S. Reid, USN and Lt. Comdr, Ray A. Tabeling, USN; United States, *Lockheed P2V-1 Monoplane*, 2 Wright R-3350 engines of 2,300 h.p. each, from Pearce Field, Perth, Australia to Port Columbus, Columbus, Ohio, September 29 to October 1, 1946.

Speed for 100 Kilometers (62.137 Miles) without Payload: Speed 796.584 km. p.h. (494.973 m.p.h.) Capt. R. A. Baird, USAAF, United States, *P-80* jet-propelled monoplane, GE-I-40 engine, Dayton Ohio, April 19, 1946.

Speed for 1,000 Kilometers (621.369 Miles) without Payload: Speed 745.079 km.p.h. (462.970 m.p.h.) 1st Lt. Henry A. Johnson, USAAF, United States, *P-80* jet-propelled monoplane, GE-I-40 engine, Dayton, Ohio, June 8, 1946.

Speed for 2,000 Kilometers (1,242.793 Miles) without Payload: Speed 708.592 km. p.h. (440.298 m p.h.) Lt. J. J. Hancock, USAAF, United States, *Lockheed P-80* jet-propelled monoplane, GE I-40 engine, Dayton, Ohio, May 19, 1946

Speed for 5,000 Kilometers (3,106.849 Miles) without Payload: Speed, 544.590 km. p.h. (338.392 m p.h.): Capt. J. E. Bauer, pilot; Capt. J. E Cotton, co-pilot; and crew; USAAF, United States, *Boeing B-29* monoplane, 4 Wright R-3350-23A engines of 2,200 h.p. each, Dayton, Ohio, July 26, 1946

Altitude with Payload of 1,000 Kilograms (2,204.622 lb.): 14,603 meters (47,910.009 ft.); Major F. F. Ross, pilot; Lt. D M Davis, co-pilot; Lt L B Barrier, Lt. C. B. Webster, F/O Pamphille Morrissette, and Sgt. W. S. George, crew, USAAF, United States, Harmon Field, Guam, M I., May 15, 1946. (*Boeing B-29* monoplane, 4 Wright 2,000 h p engines)

Speed for 1,000 Kilometers (621.369 Miles) with Payload of 1,000 Kilograms: 660 526 km p.h. (410.431 m.p.h.), Lt. Col. T. P Gerrity and crew, USAAF, United States *Douglas XA-26F* monoplane, 2 Pratt & Whitney R-2800 2,200 h.p. engines, Dayton, Ohio, June 20, 1946.

Speed for 2,000 Kilometers (1,242.793 Miles) with Payload of 1,000 Kilograms: Speed 588.456 km.p.h. (365.649 m.p.h.), Lt. E. M. Grabowski, pilot; Lt. J. J Liset, co-pilot; M/Sgt. D. P. Kelly, Corp F. M Polmotier, and Corp. O. W. Lambert, crew; USAAF, United States *Boeing B-29* monoplane, 4 Wright 2,200 engines, Dayton, Ohio, May 17, 1946

Speed for 5,000 Kilometers (3,106.849 Miles) with Payload of 1,000 Kilograms: Speed, 544.590 km.p h. (338 392 m.p.h), Capt. J E Bauer, pilot; Capt. J. F Cotton, co-pilot; and crew, USAAF, United States, *Boeing B-29* monoplane, 4 Wright 2,200 h.p. engines, Dayton, Ohio, July 26, 1946

Altitude with Payload of 2,000 Kilograms: 4,409.244 lb.—14,180 meters (46,522 217 feet) Col. E. D. Raynolds, pilot, Capt B. P Robson co-pilot, Lt. J G. Barnes, Lt. Theodore Madden, Lt K H Morehouse, S/Sgt. W. C. Flynn and Corp. A L. Lentowski, crew; USAAF, United States, *Boeing B-29* monoplane, 4 Wright 2,000 h.p engines, Harmon Field, Guam, M.I., May 13, 1946.

Speed for 1,000 Kilometers (621.369 Miles) with Payload of 2,000 Kilograms: Speed, 594.963 km. p.h. (369 692 m.p.h), Lt E. M. Grabowski, pilot; Lt J. J Liset, co-pilot; M/Sgt D. P. Kelly, Corp F M Polmotier, and Corp. O. W. Lambert, crew, USAAF, United States, *Boeing B29* monoplane, 4 Wright 220 h p. engines, Dayton, Ohio, May 17, 1946

Speed for 2,000 Kilometers (1,242.793 Miles) with Payload of 2,000 Kilograms: Speed 588 456 km.p.h , Lt. E. M Grabowski, pilot; Lt. J. J. Liset co-pilot; M/Sgt. D. P. Kelly, Corp F. M. Polmotier, and Corp. O. W. Lambert, crew; USAAF, United States, *Boeing B-29* monoplane, 4 Wright 2,200 h.p. engines, Dayton, Ohio, May 17, 1946.

Speed for 2,000 Kilometers (1,242.793 Miles) with Payload of 2,000 Kilograms: Speed, 544 590 km p.h. (338.392 m.p.h.), Capt. J. E. Bauer, pilot; Capt. J. F. Cotton, co-pilot; and crew; USAAF, United States, *Boeing B-29* monoplane, 4 Wright 2,200 h.p. engines, Dayton, Ohio, July 26, 1946

Altitude with Payload of 5,000 Kilograms: (11,023 lb.) 13,793 meters (45,252.534 feet), Lt. J. P. Tobison, pilot; Lt. Lloyd A. Lee, co-pilot; Lt. D. B. Gleicher, Lt A. W. Armistead, Lt. R M. Bearrie, Lt. E. J. Royce, F/O R. F. Johnson and Mario R. Genta, crew; USAAF, United States, *Boeing B-29* monoplane, 4 Wright 2,000 h.p. engines, Harmon Field, Guam, M.I., May 14, 1946.

Speed for 1,000 Kilometers (621.369 Miles) with Payload of 5,000 Kilograms: Speed 594.963 km p.h. (369 692 m.p.h.), Lt. E. M. Grabowski, pilot; Lt J. J. Liset, co-pilot; M/Sgt. D. P. Kelly, Corp. F. M. Polmotier, and Corp. O. W. Lambert, crew; USAAF, United States, *Boeing B-29* monoplane, 4 Wright 2,200 h.p. engines, Dayton, Ohio, May 17, 1946.

Speed for 2,000 Kilometers (1,242.793 Miles) with Payload of 5,000 Kilograms: Speed, 588.456 km.p.h. (365.649 m.p.h.), Lt. E. M. Grabowski, pilot; Lt. J. J. Liset, co-pilot; M/Sgt. D. P. Kelly, Corp. F. M. Polmotier and Corp. O. W. Lambert, crew; USAAF, United States, *Boeing B-29* monoplane, 4 Wright 2,200 h.p. engines, Dayton, Ohio, May 17, 1946.

Speed for 5,000 Kilometers (3,106.849 Miles) with Payload of 5,000 Kilograms: Speed 428.123 km.p.h. (266.028 m.p.h.), Lt. Col. R. G. Ruegg, pilot; Lt. Col. Carl P. Walter, co-pilot; and crew; USAAF, United States, *Boeing B-29* monoplane, 4 Wright 2,200 h.p. engines, Dayton, Ohio, June 21, 1946.

Altitude with Payload of 10,000 Kilograms (22,046 lb.): 12,668 meters (41,561.597 feet), Capt. A. A. Pearson, pilot; Lt. V. L. Dalbey, co-pilot; Lt. R. S. Strasburg, Lt. I. E. Bork, Corp. J. T. Collins and Corp. Joseph Friedberg, crew; USAAF, United States, *Boeing B-29* monoplane, 4 Wright 2,000 h.p. engines, Harmon Field, Guam, M.I., May 8, 1946.

Speed for 1,000 Kilometers (621.360 Miles) with Payload of 10,000 Kilograms: Speed 575.714 km.p.h. (357.731 m.p.h.), Capt. J. D. Bartlett, pilot; Lt. William Murray, co-pilot; and crew; USAAF, United States, *Boeing B-29* monoplane, 4 Wright 2,200 h.p. engines, Dayton, Ohio, May 19, 1946.

Speed for 2,000 Kilometers (1,242.739 Miles) with Payload of 10,000 Kilograms: Speed, 574.593 km p.h. (357.035 m.p.h.), Capt. J. D. Bartlett, pilot; Lt. William Murray, co-pilot; and crew; USAAF, United States, *Boeing B-29* monoplane, 4 Wright 2,200 h p engines, Dayton, Ohio, May 19, 1946

Speed for 5,000 Kilometers (3,106.849 Miles) with Payload of 10,000 Kilograms: Speed, 428 123 km p h (266 023 m p h), Lt. Col. R. G. Ruegg, pilot, Lt. Col Carl P. Walter, co-pilot; and crew; USAAF, United States, *Boeing B-29* monoplane, 4 Wright 2,200 h p engines, Dayton, Ohio, June 21, 1946

Altitude with Payload of 15,000 Kilograms (33,069 lb.): 12,046 meters (39,520.918 feet), Col B H. Warren, pilot, Major J R. Dale, Jr, co-pilot; Lt. W D. Collier, M/Sgt. Gordon S. Fish, S/Sgt. V H Worden and Sgt Thomas H. Hall, crew; USAAF, United States, *Boeing B-29* monoplane, 4 Wright 2,000 h.p. engines, Harmon Field, Guam, M I, May 11, 1946.

Greatest Payload Carried to an Altitude of 2,000 Meters (6,561.666 feet) 15,177 Kilograms (33,460 lb.): Col. B. H. Warren, pilot; Major J. R Dale, Jr., co-pilot; Lt. W. D Collier, M/Sgt Gordon S Fish, S/Sgt V. H. Worden and Sgt. Thomas H. Hall, crew; USAAF, United States, *Boeing B-29* monoplane, 4 Wright 2,000 h.p. engines, Harmon Field, Guam, M.I., May 11, 1946.

HELICOPTERS (CLASS C)

Duration, Closed Circuit: 10 hours, 07 mins, 08. secs. Major D H Jensen and Major W. C Dodds, USAAF, United States, *Sikorsky R-5A* Helicopter, Pratt and Whitney 450 h.p. engine, Dayton, Ohio, November 14, 1946

Distance, Airline—1,132.337 Kilometers: (703 6 miles), Major F T. Caschman, pilot; Major W. E Zins, co-pilot; USAAF, United States, *Sikorsky R-5* Helicopter, Pratt and Whitney 450 h p. engine, from Dayton, Ohio to Logan Field, Boston, Mass., May 22, 1946

Distance, Closed Circuit—1,000 Kilometers: (621 369 miles), Major D H Jensen and Major W. C. Dodds, USAAF, United States, *Sikorsky R-5A*, Helicopter, Pratt and Whitney 450 h.p. engine, Dayton, Ohio, November 14, 1946

Speed for 20 Kilometers in a Closed Circuit: Speed, 178.394 km p h. (110.849 m p h), Lt. Col. K S Wilson, USAAF, United States, *Sikorsky R-5*, Helicopter, Pratt and Whitney 450 h.p. engine, Dayton, Ohio, June 8, 1946.

Speed for 1,000 Kilometers in a Closed Circuit: 107.250 km.p.h. (66 642 m.p.h), Major D. H. Jensen and Major W. C Dodds, USAAF, United States, *Sikorsky R-5A* Helicopter, Pratt and Whitney 450 h.p. engine, Dayton, Ohio, Nov. 14, 1946.

Los Angeles to New York: Speed 934.926 km.p.h (580 935 m.p.h.), Col. W. H. Councill, USAAF, *United States P-80* jet propelled monoplane, GE-I-40 engine, from Long Beach Municipal Airport to La Guardia Airport, January 26, 1946. Distance. 2,453.807 miles. Elapsed Time· 4 hours, 13 minutes, 26 seconds

Los Angeles, California to New York, New York: Speed, 724.826 km p h. (450.385 m.p.h.), Col. C. S. Irvine, pilot; Lt. G. R. Stanley, co-pilot, and crew, USAAF, United States *Boeing B-29* monoplane, 4 Wright R-3350-23A engines, from Burbank, California to Floyd Bennett Field, Brooklyn, December 11, 1945. Distance 2,457 miles. Elapsed Time: 5 hours, 27 minutes, 19.2 seconds.

New York, New York to Los Angeles, California: Speed 528.828 km p.h. (328.598 m p h.), Capt. Boyd L. Grubaugh, pilot; Capt. J. L. England, co-pilot; and crew; USAAF, United States, *Boeing B-29* monoplane, 4 Wright R-3350-23A engines, from La Guardia Airport to Burbank, California, August 1, 1946. Distance: 2,453.805 miles. Elapsed Time: 7 hours, 28 minutes, 08 seconds.

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See ARMY AIR FORCES, U. S.

L. WELCH POGUE.

AFGHANISTAN. A kingdom in central Asia. Area: 251,000 square miles. Population, according to the latest estimate, 12,000,000. Chief towns: Kabul (capital) 120,000 inhabitants, Kandahar 80,000 (including suburbs), Herat 85,000, Mazar-i-Sharif 30,000. Afghanistan has an extreme width from the northeast to the southwest of approximately 700 miles, and its length from the Khyber Pass to the Herat frontier is estimated at about 600 miles.

Religion, etc. Most of the people are Moslems of the Sunni sect, though there is a minority of a million Shiah Moslems. Persian, Pashto, and Turki are the principal languages. There are some 20,000 mullahs (priests) who wield great power, including the administration of justice and a large measure of control over education. Primary education is compulsory. Schools in 1941 included 130 primary, 4 secondary and 3 military schools. A university was established in Kabul in 1932.

Finance. Afghanistan's revenue is subject to yearly fluctuations. The total annual revenue of the government is estimated at 220 Afghani rupees, a substantial amount of which is derived from the government's share of agricultural produce (based in accordance with the advantages of irrigation), customs, land taxation, and the earnings of government-controlled monopolies—the principal one being the karakul monopoly.

Production. Agriculture and stock raising are the chief occupations, the main products being cereals, fruits, vegetables, cotton, wool, hides and skins, and meat from the native fat-tailed sheep. The mineral resources include iron, copper, lead, gold, silver, lapis lazuli, coal, and petroleum, but there is little production. There are state-owned factories at Kabul, Kandahar, and elsewhere for the manufacture of arms, ammunition, boots, military clothing, furniture, matches, buttons, leather, soap, cotton goods, and wool products.

Factories were being constructed (under government supervision) by the Afghan National Bank and its subsidiary companies. These include the Afghanistan Sugar Manufacturing Co., the Afghanistan Cotton Co., the Afghanistan Motor Co., the Afghanistan Motor Accessories Co., the monopoly on the generation of electricity and import of electrical goods, and the monopoly of the north engaged in trade in wool, skins, fruits, and other goods.

Foreign Trade. Commerce is mainly with India, the Soviet Union, and Iran. The chief exports are fruits, nuts, timber, spices, cotton, carpets, wool, and furs. Cotton textiles, machinery, gasoline, kerosene, sugar, motor vehicles, and tea are the main imports.

Communications. Afghanistan has no railways and practically no navigable rivers. Four thousand miles of roads are suitable for motor transport in dry weather, and trucks are increasingly replacing pack animals as the chief means of transportation.

There is an all-weather motor highway from Kabul to Peshawar, India; a 500-mile motor route from Stalinabad, Soviet Turkestan, to Khorog on the Afghan border; and a trade route linking Kandahar to the Indian railhead at Chaman. Telephones are installed in most of the towns. Five radio stations serve the country and there is a radio installation which connects Kabul with Europe, the Far East, America, and other parts of the world.

Government. Under the Constitution of Oct. 31, 1931, Afghanistan is a constitutional monarchy, with legislative power vested in the King, a senate of 45 members nominated for life, and a national assembly of 109 elected members. Actually the state consists of a loose federation of tribes under the patriarchal rule of the family controlling the government at Kabul. Through the influence of his uncle, Shah Mahmoud, the Minister of War, Mohammed Zahir Shah succeeded to the throne after the assassination of his father, Mohammed Nadir Shah, in 1933 and remains the reigning King. King Nadir proclaimed a new constitution in 1932 under which slavery and forced labor were forbidden.

Events, 1946. Few details were available of Afghanistan's internal political situation during 1946. On January 24 Russian agencies reported the arrest of Abdurahim Khan, Deputy Prime Minister, and several of his relatives on charges of activities against the Government. Other indication of Afghanistan's political complexion was reported on May 13 through Moscow radio which stated that King Mohammed Zahir Shah had dismissed his Cabinet and requested former Minister of War, Shah Mahmoud Khan to form a new Government.

Afghanistan and the Soviet Union negotiated a frontier agreement on June 14 that provided Afghanistan with water rights on the Kushka River and gave the Soviet Union full possession of the Kushka district in the southern part of Turkmen Soviet Republic. According to the explanation of the treaty in *Izvestia*, agreement was also reached on the construction of a Russian dam on the Murgab River in the sector adjoining the frontier and decision was made to consider null and void clauses 9 and 10 of the Soviet-Afghan agreement of 1921 which stipulated that Afghanistan could annex the Kushka area if the population of the region so desired. The treaty was negotiated in secret.

During 1946 efforts were made to raise the standards of Afghanistan's economy and educational system. On August 8 Premier Shah Mahmoud announced that the size of the army would be reduced because of "America's championship of the small nations" and that "our talents and resources" can be concentrated on "bettering the living conditions of our own people." In the early part of the year a national improvement plan, at an expected cost of $450,000,000 was outlined. American engineers began arriving in July to initiate work on the ten-year program for macadamizing 1,800 miles of highways, constructing bridges, increasing tillable soil by irrigation, and modernizing the country's ancient cities.

Admission to the United Nations was requested in early July by Mahmoud Khan who stated in a cable message from Kabul that Afghanistan had proved itself a peace-loving state and was willing to abide by the obligations of the United Nations. In January Dean Acheson, Acting United States Secretary of State, said that Afghanistan was the only neutral nation to fully comply with the United States request for the deportation of objectionable Germans.

Afghanistan was admitted to the United Nations on November 9 by a unanimous vote of the General Assembly and the instruments of adherence to the United Nations Charter were signed on November 19.

AFRICA. A continent of the eastern hemisphere. Area, about 11,710,000 square miles (30,330,000 square kilometers). Population (Jan. 1, 1940, estimate), 157,900,000. See the separate articles on its subdivisions, countries, and territories, such as BRITISH CENTRAL AFRICA; BRITISH EAST AFRICA; BRITISH WEST AFRICA; EGYPT, ETHIOPIA, KENYA, FRENCH NORTH AFRICA; MOROCCO, SOUTH AFRICA, UNION OF; TUNISIA.

AGRICULTURAL AND INDUSTRIAL CHEMISTRY, Bureau of. A Bureau of the U.S. Department of Agriculture, composed of two Bureaus originally created in 1901. It is a research organization engaged in investigations and experiments in the fields of chemistry, physics, and other physical sciences with the object of gaining new fundamental scientific knowledge relating to agriculture, improving agricultural methods, and developing new and wider industrial uses for agricultural products. The four regional laboratories for Research on Utilization of Farm Products conduct investigations to develop new and wider industrial uses for agricultural commodities. Chief: L. B. Howard.

AGRICULTURAL COOPERATION. Cooperation is organized working together for mutual benefits. Economic cooperation is a form of business with democratic ownership and control by member-patrons having common needs, serving themselves on a nonprofit basis, and receiving benefits proportional to participation. Through agricultural cooperatives the small farmer assures for himself the same efficient service and the same favorable terms as were formerly too often obtained only by the large farmer.

Agricultural cooperatives generally have been working at plant capacity during 1946. They have felt shortages of farm machinery, plant equipment, materials for building and renovating facilities, and shortages of labor. They have tended to keep operations as flexible as possible in view of the uncertainties of price and other factors. For them the year has been a period of self-appraisal, examination, and refiguring of goals.

Growth has again been evident. Marketing associations returned to their patrons for crops sold, $4,835,000,000. Cotton, dairy, fruits and vegetables, grain, livestock, poultry, tobacco, wool, and mohair were the main commodities handled. Farm supply associations purchased for their patrons production supplies and equipment, principally fertilizer, petroleum, feed, and farm machinery, valued at $810,000,000. The sum of business done by the associations of these two types was $5,645,000,000.

In approximate figures, 7,400 marketing cooperatives served a membership of 2,895,000 farmers and 2,750 purchasing associations had a membership of 1,610,000 during 1944–45. In round numbers, 2,200 associations marketed dairy products; 2,280, grain; 916, fruits and vegetables; 791, livestock, wool, and mohair; 530, cotton and cotton products; 160, poultry and poultry products; and about 500 handled other crops and furnished a variety of business services.

In the commodity fields, dairy, grain, and fruits and vegetables showed the largest volume. Continued consolidations and more large-scale plants for the dairy cooperatives are features of the year. Formation of new milk distributing groups con-

tinued, especially in the South and in the East. As relatively few producer-distributors of raw milk can convert to processing and distributing pasteurized milk, in sections where demand for pasteurized milk has risen, many farmers have pooled their resources to form dairy cooperatives.

Both local and regional grain elevators have started to expand again. Total storage of regionals has passed the 40 billion bushel mark. Grain cooperatives showed a small decrease in number but a substantial increase in membership and business volume. Members of the Farmers Union Grain Terminal Association, in response to the call of the Famine Emergency Committee to ease distress abroad, took part in a move to aid other Nations by literally scraping their bins and coming up with one-fifth of all the U.S. Mercy wheat shipped abroad. Planting-seed associations continue toward the goal of bringing higher yields to farmers by providing purebred, tested, high-production strains of farm seeds.

Fruit and vegetable associations stepped into third place among the marketing groups. Efforts to bring fresher, better prepared and packaged perishables continued. Prepackaging of perishables at the shipping point continued in its trial stage. Moderate investments have been made in dehydration equipment, and installation of freezing equipment has been accomplished. Rapid adjustments to changing conditions have been an order of the day.

The trend toward decentralization of the livestock cooperatives continued with several of them obtaining local markets by which to serve more producers at country points. Cooperative packing and also rendering plants are on the increase.

Several additional broiler associations have been started this year. Three cotton cooperatives introduced the solvent extraction method for cottonseed oil, by which they hope to get out more of the oil. Newcomers among tobacco cooperatives are an association to market flue-cured tobacco from the five flue-cured tobacco States, and an auction for selling cigar tobacco in Pennsylvania. Cooperative honey groups are in good condition and give promise of doing much to help stabilize the honey market when more normal conditions return.

Frozen-food locker groups have been working toward processing plants offering facilities for all services, from slaughtering of livestock to final processing of meat and rendering of lard. Centralized slaughtering and processing facilities, serving not only locker plants, but also retail outlets and institutional consumers have appeared in several parts of the country.

A typical development in cooperative coordination among the farm-supply purchasing associations is the erection of a feed mill by the Tennessee Fertilizer Cooperative on the Tennessee River at Decatur, Alabama, and adjoining this, a marine terminal grain elevator by the Indiana Grain Cooperative. Grain will be transported by river barge from the surplus grain-producing areas of the Midwest, and at this point made into feed for farmers of the feed-hungry South who are rapidly increasing their livestock production. Another movement is being pioneered to decentralize feed manufacture down to a county basis. To a premix containing proteins, vitamins, and minerals prepared in a central mill is added local grain to make complete feeds. Land has been leased in Kentucky looking toward the operation of the first coal mine to be fully owned and operated by cooperatives in this country. A good start has been made in cooperative distribution of liquefied petroleum gas, which will bring to farms not reached by electric power lines a convenient gas for cooking, refrigeration, etc. Expansion of farmers' supply associations has been noted all along the line, but on a conservative basis.

Increasing enrollments were also general among the service cooperative groups. Farmers' mutual fire insurance companies continued their leadership in the farm fire insurance field with 1883 companies reporting insurance in force totaling $14,701,000,000 at the beginning of 1945—the most recent date for which figures are available. Other types of farmers' mutual property insurance include windstorm and hail protection and automobile coverage.

Four thousand mutual telephone companies provided about one-third of the telephones on American farms. Mutual irrigation companies in seventeen States brought water to one-third of the Nation's irrigated lands.

Cooperative hospitals were located in four small communities in Texas, Kansas, and Oklahoma, and other States were developing similar plans for hospitals or health centers to provide services on a cooperative prepayment plan. In many States the members of cooperative marketing and purchasing associations have adopted existing prepayment plans for health protection. By June 1946, nearly 30,000 members of Minnesota farm families were enrolled in Group Health Mutual through cooperative creameries, oil associations, grain elevators, and other farm organizations. In several States health coverage was had through mutual insurance companies. By June 1946, the Blue Cross nonprofit hospital service plans were reported to cover more than one million rural persons in the United States.

Farmers also obtained long-term loans cooperatively through 1,450 National Farm Loan Associations, short-term loans through 504 Production Credit Associations and through Credit Unions.

Finally this year has seen the National Council of Farmer Cooperatives, with a membership of 102 associations, which in turn have over 4,600 local cooperatives with a membership of 2,300,000 farmer-patrons hold its 17th annual meeting. The war-canceled summer sessions of the American Institute of Cooperation were resumed after being discontinued for 1942–1945.

Perhaps most far-reaching of all were the results of this year's meeting of the International Cooperative Trading Agency in Zurich, Switzerland, where plans were made by representatives of twenty-two Nations for a new association to be known as the International Cooperative Petroleum Association. In the words of the delegate from the United States: "Any nation striving to reach maximum development, agriculturally and industrially, must have adequate petroleum supplies at reasonable prices. The new organization is an important step toward lower ultimate prices to the consumer. It can help the nations of the world to achieve such developments without resort to statism or dependence on profit-monopoly."

WARD W. FETROW.

AGRICULTURAL ECONOMICS, Bureau of. A Bureau of the U.S. Department of Agriculture created in 1922 by the merger of three existing units. It is the central statistical and economic research agency of the Department, and publishes a wide variety of facts about agriculture. Chief: Howard R. Tolley.

AGRICULTURE. Crop production in the United States in 1946 exceeded that of any previous year. Food grains, feed grains, truck crops, and fruits and vegetables were record out-turns. Livestock products, however, made an aggregate quantity about

6 percent below that of 1944, and 10 percent below the high mark of 1943; yet the volume of livestock and livestock products was greater than in any year before 1942. Total milk production at about 119 billion pounds was 3 percent below the 1945 record and reflected a reduction of about 4 percent in the number of cows milked. Milk production per cow was a record. The cotton crop, less than 9 million bales, was among the smallest since 1900; both the acreage and the yield per acre were low. Farm production for sale and for consumption in farm households was about the same as in 1945, or approximately one third above the prewar (1935–39) average. Output of food for sale and farm consumption, as distinguished from total farm production, was about 36 percent above the prewar average. Farm production showed a smaller percentage increase over prewar levels than did the output of the nation's factories, but came from about the same crop acreage and from a working force depleted 10 percent; whereas the industrial increase reflected a tremendous increase both in the industrial plant and in the industrial labor force. Further particulars of the year's production appear later in this article.

Sources of our enormously increased food potential primarily are technical. They show up in steadily increasing farm efficiency. Quietly and gradually, yet with prodigious cumulative effect, American agriculture has accomplished a technical revolution. Largely it has done so in less than a decade, though with processes of earlier origin. This revolution takes form in increased farm mechanization, in increased use of fertilizer, in the employment of improved crop varieties and livestock, in the widespread application of scientific pest controls, and in scientific soil conservation. Agriculture's technical progress has produced few novelties. Nevertheless, its progress along many lines adds up to results highly significant and much happier in world implications. Moreover, the agricultural revolution continues. Provided we solve the problem of maintaining an adequate domestic and foreign market, it will continue to provide increased well being.

Total Output Below Demand. Contrary to apprehensions felt when the year began, the farm output did not exceed the demand except in a few items, notably potatoes. As during the war years, it was much below total domestic and foreign requirements. In this and in other important respects the year's developments differed from most forecasts, which had indicated that the termination of the war might diminish the drain upon the American food supply and replace shortages with surpluses. It was evident that liberated and ex-enemy countries would be short of food; but the known requirements on January 1 were considerably smaller than they became later. Farm operators expected to restore their normal crop rotations, diminish their acreage of soil-depleting crops, and prepare in other ways for ordinary peacetime conditions. It seemed after V-J day that the farm price supports, which in the war years had served the double purpose of encouraging farm production and protecting the farmers from price declines, would need to put more emphasis on the second purpose. Actually, the emphasis was again on maximum production. Farmers had to defer their plans for returning fully to conservation types of cropping, while government agencies had to continue using the price-support program primarily as a means of encouraging production. Largely, of course, the response to the world-famine need drew on stocks; but continued all-out production was necessary to make that operation reasonably safe.

Again, however, the crop of potatoes was above what the United States required for food, seed, starch, and other domestic purposes. It was a near-record crop, and we faced the probability of large potato production in 1947. As estimated in September, the 1946 output was about 455 million bushels; that of last year was 425 million. Our 1946 crop was the output, moreover, of an acreage slightly below the average; but it reflected the general recent trend toward shifts in the commercial potato-enterprise from low- to high-yielding areas. In addition, it reflected the influence of improved cultural practices and of generally favorable weather. Supplies were in excess of demand at support price levels, just as they were in 1945, and left another substantial surplus for disposal in other than the usual market channels.

American Food as Builder of Peace. Leaders in the government, in the military services, and in civilian life declared American food was as useful and necessary for the immediate purposes of peace as it had been for the objectives of the war. Military authorities said that without food supplies, sufficient at least for minimum needs in occupied areas, occupation tasks could not be done. Food requirements were also high in liberated, allied, and friendly countries, not to mention the United States. Necessarily, the United States was the largest supplier of relief foods; it was not only the largest and nearest source both for Europe and the Orient, but was practically the only source of exportable foods where production in 1945, because of drought or other reasons, had not declined. Crop failure elsewhere was widespread in that year, as the result partly of difficulties directly attributable to the war and partly of devastating droughts. Severe damage to 1945–46 crops occurred in southern hemisphere food-surplus countries, in the Mediterranean and Danube basins, and in India. Farm production in many countries suffered also from shortages of seed, draft power, and fertilizer. Without American food, deaths from starvation might have run into the millions. Millions were still hungry after our food had reached the devastated countries, but actual starvation was rare.

United States Consumption High Despite Exports. The tremendous exports of food from the United States, some particulars of which are given below, did not prevent United States consumers from getting an adequate diet. Civilian consumption of some food items declined, even to levels below prewar. Other foods, however, were available in exceptionally large supplies, with the net result that aggregate civilian consumption per capita established a new high record at about 15 percent above the prewar (1935–39) level. Toward the end of 1946 the domestic food situation was about the same as it was in 1945 after V-J day. Supplies of major nutrients were still at the high wartime level, with especially plentiful supplies of fruits, vegetables, and fluid milks. Meat supplies for civilians were larger in 1946, until late in the fall, than in the previous year. Chickens and sweet potatoes were less plentiful. Fresh and frozen fish were plentiful; more canned fish was available than in 1945; and egg supplies were relatively large. Temporarily, food grain products were below the usual civilian demand but returned to the normal position when the famine emergency abroad eased off. Potatoes were continuously plentiful. Consumers sometimes could not square the report of an average civilian food consumption

much above prewar with their own experience of shortages. Largely, the explanation lay in better average distribution, especially among the lower-income groups. In calories the United States civilian food consumption per capita in 1946 averaged 3,300 daily, as compared with less than half that in many countries.

Relief and Other Exports. Our export contribution to the famine emergency was about the same as the quantity exported in 1921, the third year after the end of World War I. This time the relief rose to a high point much sooner. Authorities believed the 1945–46 food exports, which from the United States amounted to 16½ million long tons, would represent the peak of the movement, but would level off only rather slowly throughout the following year, since reports indicated privation would continue at least until the harvests of 1947. The 16½ million tons of foodstuffs, which this country sent overseas in fiscal 1946, went chiefly to war devastated countries, where starvation threatened. This total included no less that 400 million bushels of bread grains, principally wheat and wheat flour. Approximately 192 million bushels moved out in the second half of 1945. Shipments of bread grains between January 1 and June 30, 1946, fell slightly below the commitment for that period, but supplies on hand at ports ensured fulfillment of it within a week or so. The United States also exported substantial quantities of rice, oats, rye, barley, meats, fats and oils, fruits and vegetables, sugar, eggs, and dried fish. More than 40 percent of the United States wheat distributed as food in fiscal 1946 was exported, more than 35 percent of the rice, more than 20 percent of the cheese, more than 10 percent of the fats and oils, and about 6 percent of the meat.

All told, the exports were sufficient to provide 250 million people with 500 calories each day for one year. Largest recipients were the UNRRA countries. Civilian relief programs of the United States armed forces accounted for a substantial part of the food exports. Commercial exports took less than one third. Distribution of the American food supply in 1946 differed substantially from that of the war years. Our military establishment took only 3 percent for all purposes, as compared with 12.7 percent in 1944. Exports for all purposes accounted for 7 percent; and this item may be compared with 7.7 percent devoted in 1944 to lend-lease and other exports. Civilian consumption in the United States absorbed 90 percent of the food disappearance in 1946, as compared with 80.3 percent in 1944.

Export Proportion Relatively Small. These figures draw attention to the fact that even under the most abnormal conditions, with our food production lifted far above the peacetime average, the great bulk of the disappearance continues to be domestic. Commercial and other exports accounted for only about 2.6 percent of the disappearance in the prewar period 1935–39. Even in 1944, with total food disappearance 37 percent above prewar, the disappearance for purposes other than United States civilian consumption absorbed slightly less than 20 percent. As mentioned in 1944 takings by the United States military accounted for nearly 13 percent of the entire disappearance. In volume the 7 percent left for exports of all kinds represented a large contribution to foreign requirements, since it came from a greatly expanded total output; but percentage wise it was not much of a dip into the American food supply.

Beginning of the Relief Movement. When 1946 began the United States was already exporting large quantities of food in response to requests by the armed forces, by UNRRA, and by paying countries. After a temporary drop, military requisitions for overseas purposes had started up again. Takings by paying countries, especially of wheat, were rising. In December 1945 exports to UNRRA countries alone exceeded $63,000,000 in value and with commercial exports added made an overseas movement much larger than that of a year earlier. Nevertheless, the shipments were far below the need. Famine threatened whole continents. Up to that time, though it was evident the relief demand would be large, adequate preparation to meet it had not been made. It had been expected that cutbacks in total military requirements, possibly supplemented with transfers of stocks abroad from military to relief uses, would go a long way toward answering the need. But this view proved far too optimistic. Needs in food deficit countries increased as a result of the 1945 droughts, and from too rapid consumption of food reserves. Analysis of the problem forced a drastic scaling down in estimates of available supplies and an equally drastic raising of estimated requirements. Also, it emphasized the need for a campaign to conserve and assemble foods for shipment overseas. By January 1, UNRRA had been assured of a total United States contribution of $2,700,000,000, of which $2,160,000,000 had been appropriated. But civilian consumption was rising, and a conservation program was essential.

President Truman had previously drawn attention to the prospective world food shortage. He had pointed out on his return from Potsdam in August, 1945, that sheer starvation threatened many countries. Even earlier the United States Department of Agriculture had issued sobering estimates of probable postwar food needs; it had predicted a huge food import need in Oriental countries as well as in Continental Europe. In October 1945 the Department reported that the world food situation had deteriorated, and pointed to import needs for Continental Europe in 1945–46, at not less than 18 million short tons. Food grain was the principal requirement, with fats and oils next. In February, 1946, the President announced a nine-point famine-emergency campaign, which his announcement said would inconvenience consumers, food trades and industries, and transportation systems, but would save lives, lessen suffering, and help to establish peace. Following were the nine points: (1) Conservation of food, especially bread; (2) disuse of wheat and restricted use of other grains for alcohol and beer; (3) extraction of more flour from wheat along with restriction of flour distribution; (4) control over inventories of wheat and flour; (5) rail priorities for essential foods; (6) control over exports of wheat and flour; (7) exports of fats and oils, meats, and dairy products; (8) provision of more ships to move exports; and (9) conservation of grain in the feeding of livestock.

The Department of Agriculture's Responsibility. To carry out this program became largely a responsibility of the Department of Agriculture, which issued necessary food orders, procured supplies, and arranged with the Office of Price Administration for suitable price changes. Specifically, the Department reinstated protein meal set asides, limited the use of grain for industrial and beverage alcohol, increased the wheat extraction rate for flour, restricted mixed feed production and inventories, and restricted the sale and use of wheat mill feeds. In addition, the Federal agricultural agency reinstated meat set asides, terminated a

cattle-feeding subsidy in order to conserve grain, announced increases in the ceiling prices for wheat, and offered a bonus for early wheat deliveries. President Truman appointed a Famine Emergency Committee with former President Herbert C. Hoover as honorary chairman and Chester C. Davis as chairman. Also, the President appointed a National Famine Emergency Council. The campaign began to show results immediately. Our exports of agricultural commodities in the first quarter of 1946 rose above 846 million dollars in value, and were almost 70 percent greater than in the first quarter of 1945. Overall figures for the entire fiscal year 1946, as given above, enabled the administration to say in July that the United States had reached export quotas in practically all cases, and in grains had shipped out nearly double the original requirement for the year, along with 764,000 tons of dairy products, 614,000 tons of meats, and 356,000 tons of fats and oils.

Combined Food Board Replaced. The Combined Food Board was replaced by the International Emergency Food Council on July 1, 1946. The Combined Food Board was a wartime agency through which arrangements were made to utilize to best advantage the food resources of the allied nations. The United States, the United Kingdom, and Canada were represented on the Board itself. Before peace came, the Board's commodity committees were expanded to include representatives of major exporting and importing countries. The persistence of serious world food shortages made it necessary for the Combined Food Board to continue its work after the termination of hostilities.

At the Special Meeting on Urgent Food Problems, convened by the Food and Agriculture Organization of the United Nations on May 20, it was agreed that emergency machinery to deal with the distribution of foodstuffs in short supply would continue to be necessary for the duration of critical world shortages. A recommendation was approved for the establishment of the International Emergency Food Council, which was expected to operate for at least eighteen months. The new agency held its first meeting on June 20, and officially replaced the Combined Food Board on July 1. Nineteen nations accepted membership at the outset: Australia, Belgium, Brazil, Canada, Chile, China, Cuba, Denmark, France, Greece, India, Netherlands, New Zealand, Norway, Siam, Turkey, Union of South Africa, the United Kingdom, and the United States. The Council elected the following nine nations to membership on its Central Committee: Argentina, Australia, Canada, China, Denmark, France, India, the United Kingdom, and the United States.

The transfer of functions from the CFB to the IEFC was facilitated by the fact that CFB commodity committees included representatives of major exporting and importing countries. The IEFC drew its initial membership from nations represented on CFB commodity committees.

Wartime Farm Intensity Maintained. As mentioned, farmers in 1946 could not relax the intensity of their cropping, or much reduce the continued drain on fertility reserves. Acreage in farms was relatively stable during the war years, but crop acreages shifted in response to needs. The relationship between intertilled, close-growing, and sod crops in 1946 was not greatly different from that of 1945. Marked shifts from wartime cropping patterns had not begun. For example, acreage planted to soybeans and flaxseed was still well above prewar levels, though down from the wartime peak. In areas adapted to both crops corn was generally more profitable than soybeans; moreover, soybeans were erosive on rolling land. Flaxseed, an uncertain crop in many areas, declined because farmers were reluctant to grow it with the wartime compulsion past. Sugar-beet acreage regained the 1937–41 average level, through an increase of 19 percent over 1945. Higher price support placed this crop in a more favorable position, and an easier labor situation helped. Tobacco acreage rose 8 percent over 1945. Conspicuous among the grains was a 4 percent increase over 1945 in planted acreages of both wheat and oats. World-wide needs and continued high prices stimulated wheat expansion, while weather conditions favored an increase in the oat acreage. Corn acreage changed little.

Livestock numbers decreased, and also milk production. Egg production was not greatly different from that of 1945. Chickens and turkeys raised, were between 10 and 15 percent less. The spring pig crop was comparable to that of a year earlier; the number of fall pigs much less.

Less than one in six of our people lived on farms at the opening of 1946 but the total farm population, which had been drifting steadily downward since 1933, showed a reversal of this trend.

Farm output of food, fiber, and tobacco for human use was considerably larger than the average for the 5 prewar years 1935–39. It was not greatly different on the whole from that of 1944, the last full year of the war, when output was 29 percent higher than the prewar 5-year average. Each farm worker in 1944 produced 40 percent more for human use than the 1935–39 average. Long days in the fields and barns with efficient machines, tools, and livestock, largely produced this astonishing gain. Good weather helped, but with the effect of better-than-average weather eliminated, farm output in 1944 was still one-fifth larger than the prewar average.

Major technological developments made this possible. Soil conservation, better seeds and plants, improved strains of livestock, more fertilizers and lime, and less waste in storage and transportation were major factors. More and better labor-saving machines and tools were important helps The displacement of horses and mules by tractors and other power machines was a contributing factor. With less land required to feed horses and mules, more was available for the production of food, fiber, and tobacco. Machinery released seven million crop acres during the 5 high-yielding war years, and released 52 million crop acres during the last 25 years.

Agriculture's Working Force. By the middle of 1946 the number of persons working on farms was 11,586,000, or nearly a half million more than a year earlier. The increase over 1945, which continued each month after the early spring of 1946, contrasted sharply with the fairly steady decline between 1940 and 1945, which averaged 150,000 a year. Agricultural employment in June and July, had regained 41 percent of the decrease recorded between 1940 and 1945. But with farm labor's productivity increased by mechanization and other means it is doubtful if the number of farm workers will need to rise to its prewar level.

Considerable change took place in the composition of the farm working force. In the war years, experienced farm hands often had to be replaced with women, youths, older persons, or nonfarm people. Thus in 1943, the farm working force included 2.1 million housewives and 1.1 million youths of school age. In 1945 high school age

youths from 14 to 17 made up one-fifth of the hired farm workers.

By July 1946 the return of veterans to agriculture had reached about 1 million, and the proportion of men among agricultural workers had risen significantly. The entire increase of 485,000 over July 1945 took place among males. Other changes included the removal of 71,000 prisoners of war, and a reduction of 20,000 in the number of imported foreign workers. The increase in the total farm labor supply did not weaken agricultural wage levels. Ample job opportunities in both town and country maintained an upward trend, and brought farm wage rates to the highest level on record. Wage rates of hired farm workers in the United States on July 1 were 8 percent higher than a year earlier. Average rates without board were $4.84 per day and $106 per month.

Farm Income in 1946. It seemed from indications in the fall that the net income of farm operators in 1946 might be as much as 8 percent greater than that of 1945. Net income is what the farmers have left after subtracting their expenses of production from their gross income. It is the amount available for farm family living, savings, etc.

Production expenses for 1946 ran about 11 percent above those of 1945. Some of the items involved may be noticed. Expenditures for purchased feed, for example, were higher, partly because feed prices had risen and partly because the farmers in the first half of the year fed their livestock more liberally. Expenditures for hired labor were greater than in the previous year, reflecting a slight increase in the number of hired workers employed at higher wage rates. Costs or charges for farm maintenance and depreciation averaged higher, in part because farmers were able to obtain larger supplies of farm machinery and motor vehicles. Total costs of operating farm motor vehicles were rising during 1946. Expenditures for fertilizer and lime also were above those of 1945, since both the amounts used and the prices had increased.

In addition, farmers in some parts of the country paid higher taxes for local government, the expenses of which have increased. On the other hand interest payments on farm mortgages declined slightly, in line with reductions by farmers in their mortgage debt. But because of these changes in production costs, the net income to farm operators increased slightly less than the gross farm income. Cash receipts from marketing, which constitute the greater part of the gross farm income, ran as much as 9 or 10 percent over 1945. The same percentage gain appeared in early estimates of the 1946 value of farm products consumed in farm households, so that American farmers' overall gross farm income—from sales, home consumption and government payments—was expected to show an increase of about 10 percent in 1946 as compared with 1945.

In dollars the cash receipts from farm marketings ran two billions above last year's 20.18 billions. Considerably more of the increase came from marketings of crops than from marketings of livestock and livestock products. Cash returns of crops marketed exceeded those of 1945 by as much as 16 percent, largely as a result of increased returns from wheat, feed crops, and cotton. Some increase took place in the receipts from livestock and livestock products. In this branch of agricultural marketings, meat animals and dairy products were chiefly responsible for the improvement. Government payments to farmers were slightly higher than those of 1945. In physical volume the marketings were about the same as those of 1945. A higher volume of crop marketings was offset by a smaller volume in livestock and livestock products. Volume increases were notable in wheat and vegetables, while marketings of cattle and calves, of poultry and eggs, and of tobacco decreased.

Agriculture a 100 Billion Dollar Industry. As of January 1, 1946, agriculture could be classed as a 100 billion dollar industry. During the year 1945 the value of its total assets rose from about 91 billion dollars to nearly 102 billions. The combined value of farm real estate, crops, livestock, and farm and home equipment increased from approximately 75 billion to over 81 billion dollars between January 1, 1945, and January 1, 1946. During the same period farmers' financial assets such as currency, bank deposits, and Government bonds grew from an estimated 16 billion dollars to 20 billions.

Accompanying this upward trend during 1945 in the value of assets was a reduction in liabilities. Although it showed a smaller decrease than in the year previous, farm-mortgage debt declined to 5,081 million dollars, down nearly 4 percent for the year and down 23 percent since Jan. 1, 1940. Mortgage debt not only decreased less in total during 1945 than in previous war years, but in 20 States it actually increased. Non-real-estate debt owed by farmers to principal financing institutions (exclusive of loans guaranteed by the Commodity Credit Corporation) increased 3 percent, to 1,672 million dollars.

Main Facts of the Year's Crops. Some particulars of the year's record crop production deserve mention. Conditions in September, while not favorable in all localities, maintained or improved most crops. Corn matured with little frost damage and with good quality. Estimated production of nearly all crops exceeded earlier expectations with cotton an important exception. Cotton production dropped to the lowest level in 25 years. Estimated aggregate crop volume in September was 2.5 percent above the previous high of 1942, and 26.4 percent above the 1923–32 level.

Potatoes moved into the all-time record group along with corn, wheat, tobacco, peaches, pears, plums, and truck crops. Oats, rice, and peanuts came near to production records. Also in the near-record class were grapes, cherries, and sugarcane. Average or better crops were reported for hay, soybeans, dry peas, prunes, apricots, hops, sugar beets, flaxseed, sorghum grain, buckwheat, sweet potatoes, and apples. Below-average crops included rye, broomcorn, dry beans, and pecans. Oil crops group were lower than in 1945 despite improvement during the fall in the estimates for soybeans, flaxseed, and peanuts. Food grains and feed grains were at the highest aggregate production level on record.

Production of feed grains was about 127.5 million tons, 4 percent above the 1942 high. This total included 3,374 million bushels of corn, 1,527 million bushels of oats, 255 million bushels of barley and 88 million bushels of sorghum grain. Supplies per animal unit were the most liberal in our history, despite relatively small carryover stocks. The 97 million tons of hay, with a record-large carryover and large crops of rough forages, provided a liberal roughage supply. Pastures generally recovered from the low point of the season though not to the condition of a year earlier. Two large areas were exceptions, one embracing most of West Virginia, western Pennsylvania, northern Ohio, southern Michigan, and other areas along

lower Lake Michigan, and the other centering in the Ozark region. Range pastures improved. Winter prospects were favorable in former dry areas of the Southwest. Cattle and sheep made good gains in the areas of improved feed.

Production of food grains at 37.4 million tons topped that of any previous year. Added to the record winter wheat total of nearly 880 million bushels was a spring wheat crop of nearly 290 million bushels. Our total wheat crop of more than 1,169 million bushels was 46 million bushels larger than any previous crop. Estimated rice production of 70 million bushels was nearly a record and the 7.3 million bushels of buckwheat was above average. The 4 feed grains and 4 food grains amounted to about 165 million tons, about 10 million tons more than in 1942, previously the top total.

Sugar crop production was high though sugar beets declined slightly in September. Tobacco production was a new record at 2,248 million pounds, a quarter of a billion pounds more than the previous record total of 1945. Burley and flue-cured types established new records and every class was above its 1945 production. Broomcorn was above average.

Milk production per cow in September was the highest for the month in 22 years of record, for the seventh consecutive month. It reflected culling of the less efficient milkers and liberal feeding in response to rising prices. Egg production continued more than 20 percent above average.

The harvest of deciduous fruits was a record high. Continued improvement in the fall brought the total 19 percent above 1945 and 14 percent above average. Commercial apple production was about average; peaches, pears and plums were record crops; grapes and cherries were nearly records and prunes and apricots were above average. Growing conditions were favorable for new-crop citrus in all States, especially in Florida. Record citrus production was in prospect. Production of tree nuts was about 5 percent less than in 1945, but 22 percent above average. Record crops of almonds and filberts and a near record for walnuts were offset by a below-average crop of pecans.

Abundant supplies of fresh vegetables were in prospect. As the harvest of fall truck crops began, production for the year was expected to exceed that in any previous year. Production of late vegetables for processing was large. Green lima beans and green peas for canning and freezing were expected to exceed previous records, and the prospective aggregate supply of vegetables for processing was a third larger than average and only slightly below the record quantity produced in 1942. Total production of 21 kinds of grass, clover, and winter cover-crop seeds was approximately 494.6 million pounds of clean seed, compared with about 445.4 million pounds in 1945 and the 1940–44 average of 446.7 million pounds.

World Food Production for 1946–47. Food production throughout the world for 1946–47, according to reports received by the Department of Agriculture, will be larger than in the previous year though not up to the prewar average. Notably, the world's wheat crop will be larger. Favorable conditions in the Northern Hemisphere and also in the Southern Hemisphere, except in droughty parts of Australia, indicated the possibility of a wheat output nearly equal to the prewar average of 5.9 billion bushels or about 700 million bushels above the 1945–46 crop. Rye as a world crop promised to be larger than in 1945–46 though below the prewar level; also, the world's rice production. Larger sugar production was in view. Expanding copra production in the Philippines and in the Netherlands East Indies was a partial offset to the serious world shortage of fats and oils. As mentioned, crop production in the United States continued at an all-time high. With livestock production here only a little below the war peak, it seemed the United States would continue to be the principal source of relief foods and commercial shipments in foreign trade.

Sharp reductions in carryovers left the world's total supply of food much below requirements, and only slightly above that of a year earlier. It was evident that food-deficit countries, though these accounted for much of the expected increase in output, would still need large food imports. Figures given with regard to the world's grain imports in 1946 sufficiently indicated the situation there. How the matter stands with fats and oils appeared during 1946 in an enormous difference between available export supplies and estimated requirements. Export supplies for the year amounted to only 2,500,000 tons. Average international trade in fats and oils before the war exceeded 5,000,000 tons. Though considerably less than that quantity would suffice in 1946–47 for the most urgent needs, it was not probable that anything like enough would be available even for that limited purpose. Moreover, stocks were perilously low in the United States.

In general, during 1946 conditions for agricultural production were better than a year earlier in North America, central Europe, and Russia. New crops eased the food situation somewhat in North Africa. Crop prospects were poor in southern China, and food supplies were unusually short in parts of China, and also in parts of India. In fact, unfavorable agricultural conditions prevailed over a great part of the Orient. Farm food production in Japan, where repatriation of nationals had greatly increased the population, was heavily down from the prewar level, and the country was desperately short of farm tools and fertilizer. Huge food deficits harassed the Philippines, where rice production was scarcely more than half the prewar average, and where serious shortages existed also in wheat, corn, dairy products, meat, and fish. Ordinarily, India and China obtain large quantities of rice from Burma, Indochina, and Siam. But these sources were largely unavailable, and the countries normally dependent on them looked instead toward the wheat countries for essential foods.

Farm Rehabilitation Needs Abroad. Farm rehabilitation needs were urgent in many countries. Machinery, other farm equipment, supplies of fertilizer, and even of seed were scanty. Feed supplies for livestock were very low; farm draft power was down in places as low as 60 percent below prewar. Much of the damage to agriculture, especially in central and western Europe, resulted directly from the war, and appeared in farms pitted with shell holes, sown with mines, or transformed into untillable wastes. The fighting also tore up roads, bridges, drainage works, and irrigation systems. Armies took away machinery, animals, food, feeds, and even seeds. Besides the damage it caused directly, the war disrupted transportation and processing facilities, paralyzed whole economic systems, and precipitated land redistributions and the other drastic social changes. It was evident that comparatively little of the rehabilitation job was a foreign responsibility, though UNRRA made considerable quantities of ma-

chinery, draft power, fertilizers, and seed available. Eventually, in some way, the handicapped agricultural industries would have to achieve their own rehabilitation.

Farm draft power of the UNRRA countries in Europe averaged only half of what it had been before the war. In the spring of 1946, out of the prewar 9,981,000 draft-power units, only 5,198,000, or 52 percent, remained. Moreover, the remaining units consisted mostly of worn-out tractors, and of lame, blind, diseased, or over-age animals. In Italy about two-thirds of the tractors were obsolete. In Oriental countries the draft-power shortage was less extreme; the estimated loss in China, for example, was 20 percent. Nevertheless, the Orient's shortage of draft animals and of machine power was critical because the traditional reliance there on human muscle was strained already to the breaking point. Moreover, men, women, and children when harnessed to implements often use up more food energy than their work can produce, so that farming by this method may ultimately increase the food shortage.

In most countries, both in Europe and in the Orient, tillage implements also are scarce. The destruction of farm tools and machines has about equalled the losses sustained in draft power. Thus even if human muscle could be substituted effectively for animal and engine power, it could not fully be put to work. Observers reported the use of it, nevertheless, even in once highly mechanized farm areas. In machinery shortage, Yugoslavia was typical. Yugoslavia lost 15,000 harvesting machines, and had only 10,000 left, most of which were in bad condition. In China, where the Japanese stripped every scrap of metal from the occupied areas, one-horse cultivators and walking plows were chiefly in demand.

All the war-torn countries desperately need repair shops and repair materials. One report said that in some European villages not even a hammer or an ax could be found. Lack of pumps and of piping prevented the use of many irrigation wells; lack of rubber hose for sprayers hampered the protection of crops from insects; lack of threshers threatened losses in harvesting. Lack of dairy processing equipment worsened the shortage of milk and milk products. Farm recovery in many countries awaited the provision of farm facilities, with hunger or dependence on relief-food imports, the only alternative.

Rural Electrification in the United States. An increasing demand for electric service was reflected in a record volume of loan applications submitted to the Rural Electrification Administration throughout 1946 by rural electric cooperatives and other REA borrowers. In response to this demand, Congress authorized $300,000,000 of REA loans during the fiscal year ended June 30, 1946. With a lending authorization of $250,000,000 for the fiscal year ending June 30, 1947, it appeared that REA loans during the first 2 years after the war would total about as much as had been contemplated for a 3-year postwar program and would exceed the total in the first 10 years of REA's existence.

Most of the application for REA loans came from rural electric cooperatives and other REA borrowers that were preparing to expand their electric systems in order to serve additional rural consumers in their areas. There was also substantial demand for service, however, in areas where no previous rural power systems existed. This was particularly true in North and South Dakota, Nebraska, and other sections of the Great Plains States.

During the fiscal year, REA approved loans totalling $290,463,910 from 1946 funds. Estimates indicated that these loans would be sufficient to build a total of 183,916 miles of line serving 565,247 rural consumers in 45 States and Alaska. See separate article, RURAL ELECTRIFICATION ADMINISTRATION.

Additional Crop Estimates. In the near future, the Bureau of Agriculture Economics will make additional estimates of livestock slaughter and will further improve or extend its estimates relating to dairy products, poultry, farm prices, farm wage rates, feed supplies, and feed consumption. Already through the Production and Marketing Administration, the Department of Agriculture makes monthly estimates of livestock slaughter and meat production in federally inspected plants. BAE plans now to obtain information on farm slaughter from crop and livestock reporters. It will also collect facts from nonfederally-inspected plants. Together, these reports will give the Nation a picture of total livestock slaughter and meat output, month by month.

The commercial broiler industry has expanded its volume ninefold since 1934. The Bureau will keep abreast statistically with this development. It will also collect more information on prices received by farmers for beef cattle, apples, milk, and poultry products. It will investigate amounts paid for hired labor, report on farm labor employment customs, and record wage rates in areas that employ large numbers of seasonal workers.

Six new statistical divisions have been set up within the Bureau under the general supervision of an Assistant Chief. They will report on field-crop, fruit and vegetable, livestock and poultry, dairy, agriculture price, and special farm statistics.

New Uses for Farm Products. Chemists found additional ways in which farm products can be utilized in industry. Many widely used products can be made from milk casein, soybeans, sugarcane bagasse, oat hulls, corncobs, straws, and other farm materials. Costs are sometimes high in comparison with the utilization of nonagricultural products. But this is not always true; moreover, as in other technology, the cost of utilizing farm materials in industry may decline. The Department of Agriculture's reports on the utilization of agricultural wastes and residues indicate that on balance agriculture is losing more markets to synthetic materials than it is likely to gain from the new industrial uses. Nevertheless, important possibilities exist in farm-product utilization, which should be developed. Technology is advancing and may alter the competitive situation. Science is finding additional uses for crops through controlled fermentation, chemical processing, and other ways, the importance of which will increase with continued drain on mineral resources. Solving the economic problems will involve marketing as well as production.

Achievements in Plant Science. A summing up on the value of new wheat varieties, distributed since World War I, shows they have added more than half a billion bushels to the Nation's bread material during the last four years, much of it in the hard spring wheat region, where stem rust has been very destructive. The newest wheat of this class, Cadet, distributed in 1946, resists stem and leaf rust and outyields other beardless varieties. There has been marked progress in developing new varieties for the hard red winter wheat region, where drought resistance is of primary importance. Establishment of the new Austin wheat in central and south Texas is reported by the cereal special-

ists as the first step in a program to eliminate the source of stem rust spores that have been carried by the wind each year with disastrous results in the great wheat areas to the North. The Austin variety, put out in cooperation with the Texas station in 1943, proved so popular, that 600,000 acres of it was harvested in 1946, a good crop itself and a great rust barrier.

Sugar-plant investigations resulted in outstanding recent improvements in sugarcane, and in sugar beets for the West and for the humid beet-growing areas. Two new sugarcane varieties for Louisiana and Florida were both adapted to machine harvesting and had many other advantages, including resistance to certain diseases. Another advantage to sugarcane growers, particularly in Louisiana, was the discovery that 2,4-D is effective in killing alligator weed and "tie-vines" and has no adverse effect on the cane plants. Johnson grass, the other big weed pest in canefields, is not much damaged by this treatment but tests show it can be controlled with repeated flamings.

Sugar-beet growers may now look forward to the day, probably not far off, when their crop yields will show the life of hybrid vigor. It has already been introduced, but strains are not yet available for commercial use. To be a success such strains must have the seed-producing convenience of one parent line that is male-sterile. The plant breeders already know they have available in their breeding material all the characters needed to provide the hybrids wanted. What might be called the onion trick (from the success of the California Hybrid Red Onion, based on male sterility), will be worked again for the sugar-beet farmers. The experimental hybrids already worked out have shown high disease resistance. They can outyield good commercials by two tons of beets and eleven percent sugar.

Legislation for Agriculture Research. Greatly broadened agricultural research was authorized under Public Law 733 (the Research and Marketing Act of 1946), which was signed by President Harry Truman on August 14. No funds were appropriated but a total of $9,500,000 was authorized to be appropriated in the fiscal year 1947 for agricultural research and marketing services, with special emphasis on research regarding the utilization of farm products, the marketing and transportation of farm products, and agricultural production. Additional amounts were authorized for subsequent years. Principal objective of the legislation, as stated by its authors and sponsors, is to give agriculture parity with industry in the field of research.

The legislation specially emphasizes research and services to improve the marketing, handling, storage, processing, transportation, and distribution of agricultural products. An appropriation of $2,500,000 is authorized to be made for 1947 to conduct the new research and service. Authorized annual increases would raise the amount to $20,000,000 in 1951. These authorized funds are in addition to all other funds available for marketing activities.

Establishment of a National Advisory Committee of eleven members, six of whom are to be producer representatives, is provided for in the new measure. This Committee, to be named by the Secretary, will make recommendations regarding the research and service work and assist in obtaining the cooperation of affected groups and Federal and State agencies.

Backward Marketing Facilities. Keeping market facilities in step with farm production is a task with two main aspects, the relative importance of which varies with technical and industrial developments. One aspect concerns the improvement of existing structures, equipment, and methods. Few cities in the United States have adequate facilities for unloading fruits and vegetables directly from railroad cars into the wholesale market; they must depend on truck hauls, frequently through heavy traffic. Even cities with good marketing facilities, and with close correspondence between their techniques of production and distribution, have some rebuilding to do.

The other big aspect of the problem is the provision of new shipping and receiving centers, processing and storing plants, slaughtering and refrigerating establishments, and other means of handling farm products in the modern way. In some areas of low production, low consumption, and undernourishment, practically everything required in marketing will have to be built from scratch. This is a chance to build well. Some new construction will be in order almost everywhere, side by side with vigorous well-planned improvement of existing market facilities.

It is important to recognize the distinction, and at the same time the interdependence, between market facilities and markets. Merely to improve the facilities will not create consumer purchasing power or raise the general standard of living. Production is the key to that—production by scientific means for adequate rewards. Obviously, however, the production cannot develop without means to distribute it; in fact, in many localities this is a main inhibition. For example, the production of milk for sale in the fluid form is impossible without efficient collection, speedy transportation, refrigeration, bottling, and daily deliveries. Good handling of meats and of fruits and vegetables requires sanitary and efficient processing, assembling, and distributing facilities. In the modern world production and marketing fuse into a single continuous operation, dependent for its efficiency on an approximately equal development of up-to-date techniques all along the line. Indeed, the marketing, from the consumers' standpoint, is part of the production job; it takes, transforms, preserves, and ships a tremendous output that otherwise would not appear or would be lost. It is the link between mass farm production and mass consumption, without which the farm production could not continue.

Extreme difficulty and complication attend the distribution of fruits and vegetables. This often is a weak spot in areas that do quite well with milk and meat. Studies in the United States of wholesaling and jobbing markets for fruits and vegetables reveal extensive need of improvement. In many cities the markets have undergone little change in fifty years, though in that period the production of fruits and vegetables has been literally revolutionized. Many markets do not fit the present situation. Their facilities have not kept pace with population-growth, with the rise of motor-transport, with crop-specialization in distant areas, and with changes in consumer demand. There is often much duplication of structures and equipment with useless splitting of business among points throughout a city. Unnecessary cross-hauling and spoilage result, the expense of market operation is excessive, and market-regulation breaks down. Communities that are just beginning to organize their distribution of fruits and vegetables have a chance to avoid such mistakes. In all cities, except the very largest, it can be an advantage to have only one wholesale market, since the wholesale market may be considered a natural monopoly.

Merely to list some things required in marketing

fruits and vegetables shows the formidable nature of the problem. One essential (in fresh-product handling) is easy access to regions of specialized production; it is impossible to rely on the chance offerings of occasional growers. Grading, boxing, and shipping make a trio of related tasks; products officially graded, uniformly boxed, and shipped in well-established ways have advantages over irregular or off-pattern shipments. Transport by fast freight or express adds to the marketability of the products. Systems for allocating supplies by areas, so as to obviate local gluts and shortages, add greatly to the cheapness and efficiency of fruit-and-vegetable marketing. Storage for out of season products and facilities for preserving fruits and vegetables are essential for year round provision of essential protective elements. Modern techniques of canning, drying, dehydrating, and freezing have enormously widened the space and lengthened the time in which the marketing may be done, and the markets for fresh, and for preserved products develop in a natural interdependence. In wholesaling and retailing, speed and sanitation rank high, and demand elaborate physical facilities.

As marketing develops, it may take an increasing proportion of the consumer's dollar. This proportion may vary considerably, moreover, from one kind of food to another and may seem especially high with highly processed foods such as crackers and canned fruits, or with perishable fruits and vegetables. But the proportions prove nothing by themselves; only close analysis can show their meaning. Distribution and processing necessarily cost more as the number of steps or processes increases. In a very primitive society, where consumption must follow quick upon production, distribution costs the consumer little because little distribution takes place. It may take quite a big slice out of the consumer's dollar in a complex economy based on specialized production and long-distance shipment; but there it may be worth its cost. Cutting the cost is always in order, but not an attitude which regards it automatically as extortion. The more reasonable course is to expect that distribution will run up a higher bill as it grows in scope, and to insist merely that the payment shall be for value received, as under the proper conditions it readily may.

Consumer's Interest in Improved Facilities. Heretofore, the demand for improvements in agricultural marketing has come chiefly from producers and traders, who have wanted higher prices, an increased volume of sales, or lower costs of distribution. Strengthened now with an awakened consumer interest, and pointed to the grand objective of better nutrition and higher living standards everywhere, the movement should set new goals for itself. It will find undoubtedly that the kind and volume of trade in view will require facilities far superior to those previously considered adequate, which from the standpoint of nutritional needs have left much to be desired. Fortunately, the work already done embodies principles strong enough to carry considerable new superstructure, especially in facilities for measuring variations in the quality of farm products and in expressing these gradations in a common trade language. The basis exists, in international as well as domestic trade, for fairer, wider, and less costly distribution, and also for greater cooperation in the marketing process among producers, traders, and consumers.

Programs for new construction and modernization of marketing facilities got off to a slower start in 1946 than had been expected. There were difficulties in bringing together newly released materials, and in assembling skilled labor. Plans, which toward the end of the year got out of the blueprint stage, contemplated expenditures of hundreds of millions. Food trades projected large additional construction, such as numerous streamlined wholesale plants with extensive refrigeration and storage equipment to care for the expected increase in frozen foods. New retail-store construction, mostly by established enterprises, promised to carry the total to 400,000 buildings. Manufacturers of food-processing equipment expected to acquire and modernize plants previously devoted to war work. Among other items, such manufacturers had orders for more than $600,000,000 worth of grocery manufacturing equipment. Notably, the reconversion of dairy processing raised problems in the construction, location, equipment, and utilization of processing facilities.

Processors of fruits and vegetables faced new conditions in 1946. Government requirements, though substantial, declined, especially for dehydrated products. Most fruit and vegetable dehydrators ceased dehydration operations. Citrus concentrate plants had less business than in the war years but had opportunities for expanded production of straight juices. Canners ran into increased competition from quick-frozen foods, output of which was threefold greater than before the war. Bottlenecks in food packaging were far less troublesome than in 1945, though restrictions on the use of tin plate were in force. Manufacture of cans by the electrolytic method, which makes a given amount of tin go further, was a legacy of wartime experience. Facilities for livestock slaughtering and marketing were generally adequate, but shortages of motor trucks hampered shipments of livestock.

School Lunch Program. The National School Lunch Act, approved June 4, 1946, established a permanent basis for the program administered by the U.S. Dept. of Agriculture since 1935. Participation in the school lunch program during the school year 1946–47 will probably include some 8.6 million children in 48,000 schools. School lunches in the 1945–46 school year benefited 7 million children in 44,000 schools. The new Act authorizes appropriations to the Department of Agriculture to assist States in "the establishment, maintenance, operation, and expansion of nonprofit school lunch programs." The money will be given as grants-in-aid to States to repay schools for food purchases, etc.

Funds authorized for equipment are limited to $10,000,000 annually; funds for school lunch food, however, will vary from year to year with requirements. Apportionment among the States will be in line with numbers of school children between 5 to 17, and with per capita State incomes. Federal funds if accepted must be matched, dollar for dollar, by State funds until 1951. Thereafter, until 1955, the State contribution must be increased to $1.50 for every Federal dollar. After 1955, the State must provide three times the Federal contribution. In a State whose per capita income is less than that of the United States, however, the matching required for a fiscal year may be decreased by the percentage of difference between the State's per capita income and that of the United States.

Assistance may be given to nonprofit private schools that meet eligibility requirements, as well as to public schools. In most cases, the Federal funds for both types of school will flow through State educational agencies. In States not legally authorized to disburse contributions to private schools, the State offices of the Production and Marketing Administration will handle the contracts.

The eligibility requirements are the same as those observed during the last three years. Schools that accept Federal assistance must serve a lunch suited to the nutritional needs of growing children; reimbursement at the highest rate will be for the complete meal known as the Type A. Lunches must be available to all children without discrimination, regardless of their ability to pay. Schools must keep records, so that compliance with the provisions of the Act may be determined.

This legislation has a two-fold declared purpose: (1) To safeguard the health and well-being of our Nation's children, and (2) to encourage the domestic consumption of nutritious agricultural commodities and other food. In this respect it follows the principle emphasized previously in the school lunch programs. In prewar years, under Section 32 of Public Law 320, 74th Congress, foods purchased by the Dept. of Agriculture to alleviate market conditions were sent to State welfare agencies for use in school lunch programs. During the war, when food surpluses almost disappeared, a reimbursement plan was widely used instead, whereby school lunch operators received money to cover part of their food costs.

The new program will emphasize the use of the more abundant foods. Whenever market conditions are such that the Department must purchase quantities of certain foods, it will offer such foods to schools for the lunch program. It will assist schools in making an efficient use of the foods provided, and in improving the school lunch program as a whole.

ARTHUR P. CHEW.

AGRICULTURE, U.S. Department of. A Department of the U.S. Government, created by Act of Congress, May 15, 1862, and directed by law to acquire and diffuse useful information on agricultural subjects in the most general and comprehensive sense. The Department performs functions relating to research, education, conservation, marketing, regulatory work, and agricultural adjustment. It conducts research in agricultural and industrial chemistry, the industrial uses of farm products, entomology, soils, agricultural engineering, agricultural economics, marketing, crop and livestock production, production and manufacture of dairy products, human nutrition, home economics, and conservation. It makes research results available for practical farm application through extension and experiment station work in cooperation with the States.

The Department provides crop reports, commodity standards, Federal meat inspection service, and other marketing services. It seeks to eradicate and control plant and animal diseases and pests. It administers more than 50 regulatory laws designed to protect the farmer and consuming public, and enforces the Sugar Act of 1937 and the Commodity Exchange Act, June 15, 1936. It promotes the efficient use of soils and forests. It provides rural rehabilitation, and guarantees farmers a fair price and a stable market through commodity loans and marketing quotas. It also provides agricultural credit, assists tenants to become farm owners, and facilitates the introduction of electric service to persons in rural areas.

Changes During War Years. Early in the war period the Department of Agriculture functioned as a food administration though without any formal order. On December 5, 1942, President Roosevelt by an executive order made it officially responsible. This order, which announced a reorganization of the Department, placed all Department agencies concerned with food production under a Director of Food Production and grouped all department agencies concerned with food processing, storage, allocation, and distribution under a Director of Food Distribution. In March, 1945, by another executive order, this arrangement gave place to a new delineation of wartime food responsibilities. Parts of the existing food production and food distribution administrations became the War Food Administration, which managed the war food job until June 30, 1945, when by its own request the President abolished it and merged its functions with those of the Department of Agriculture.

Subsequently the Secretary of Agriculture, Clinton P. Anderson, announced the appointment of a Committee on Departmental Reorganization. On the advice of this committee the Secretary announced the establishment of a Production and Marketing Administration which was, in effect, a consolidation of the following agencies: Office of Basic Commodities, Office of Supply, Office of the President of the Commodity Credit Corporation, Offices of the Manager and of the Secretary of the Federal Crop Insurance Corporation, Office of Marketing Services, Agricultural Adjustment Agency, Office of Requirements and Allocations, Office of Price, Office of Transportation, Office of Materials and Facilities, Office of Labor, Office of Home Food Supply, Office of Investigatory Services, and the liquidating Federal Surplus Commodities Corporation.

Principal agencies of the Department include the following: The Agricultural Research Administration, which directs and supervises most of the scientific research activities of the Department. Agencies which report to ARA include: the Bureau of Agricultural and Industrial Chemistry, the Bureau of Animal Industry, the Bureau of Dairy Industry, the Bureau of Entomology and Plant Quarantine, the Bureau of Human Nutrition and Home Economics, the Bureau of Plant Industry, Soils, and Agricultural Engineering, the Office of Experiment Stations, and the Agricultural Research Center of Beltsville, Maryland.

Other important agencies of the Department are: the Extension Service which cooperates with State agricultural agencies in education programs: the Farm Credit Administration, organized to provide a complete credit service for farmers and farmer cooperative associations; the Farm Security Administration, which makes loans and gives technical supervision to family-type farmers unable to get sufficient credit elsewhere; the Forest Service; the Rural Electrification Administration; the Soil Conservation Service; the Bureau of Agricultural Economics; and the Office of Foreign Agricultural Relations.

Legislative Basis of Action Agencies. In 1929 the Agricultural Marketing Act was passed, followed by the establishment of the Farm Board. The Foreign Agricultural Service Act was enacted in 1930. Enactment of the Agricultural Adjustment Act May 12, 1933, resulted in the setting up of many "action agencies" in the Department. This act was designed to establish and maintain such balance between the production and consumption of agricultural commodities, and such marketing conditions therefor, as would reestablish prices to farmers at a level that would give farm products the purchasing power they had in specified earlier base periods. The base period for most commodities was 1909 to 1914.

Subsequent legislative acts authorized other parts of the Department's action program. These measurements included: the Emergency Farm Mortgage Act of 1933; the Farm Credit Act of

1933; the Federal Farm Mortgage Corporation Act and the Jones-Costigan Sugar Act of 1934; the Soil Conservation Act of 1935; the Soil Conservation and Domestic Allotment Act, the Rural Electrification Act, and the Flood Control Act of 1936; the Agricultural Marketing Agreement legislation; the act placing functions of the Federal Surplus Commodities Corporation in the Department; the Bankhead-Jones Farm Tenant Act; the Norris-Doxey farm forestry legislation; the Pope-Jones water-facilities legislation; and the Sugar Act of 1937; the marketing-agreements and surplus-diversion programs, authorized in 1937–38; and the Flood Control Act, the Agricultural Adjustment Act, and the Federal Crop Insurance Act of 1938.

Famine Program. Secretary's Memorandum 1156, March 19, 1946, established an Office of Emergency Food Program in the Office of the Secretary to coordinate and give general direction to all phases of the program, and to assist the Secretary in providing food for relief shipment abroad. On April 9, Herbert Hoover reported to the Famine Emergency Committee on European food needs and the next day the Secretary issued a call for world aid in the food fats and oils crisis.

Secretary's Memorandum 1158, April 10, 1946, provided for coordination of relationships between the Department and the Food and Agriculture Organization of the United Nations.

The Famine Emergency Committee made recommendations for intensification of the food-for-famine program in a letter to the President dated April 17, 1946. On April 19, the Secretary announced a 6-point program to speed up and increase food-grain shipments urgently needed to avert famine abroad. Still other grain conservation and famine relief measures were quickly taken. The Government's grain price policy was announced May 8, the wheat program May 14.

ARTHUR P. CHEW.

AIR CONDITIONING AND REFRIGERATION. The Air Conditioning and Refrigeration Manufacturers Association, following a study of industrial development in the South, predicted that the increasing use of air conditioning is playing a large part in making such development possible, as it places the South in climatic equality with Northern industry.

Technical details on the air conditioning of 4¾ miles of London subway during wartime were released during 1946. The subway was used for manufacturing purposes with the machines placed side by side, and with a track for narrow gage cars running back of the operators. It was necessary to air condition the subway to make such use possible. Approximately three million cubic feet of space were conditioned.

A new refrigeration code was adopted by Detroit in June. Later, the Wisconsin State Industrial Commission held a series of meetings to study a proposed new State refrigerating plant code. A Los Angeles refrigerating code was completed in the summer. Additional regulations were set up governing the use of new Freon refrigerants in New York City.

Indications later in the year were that a committee representing the frozen food industry and various consumer groups would be appointed to draw up minimum standards to restore prewar quality in the industry. Frozen foods reduced raw food costs to $.90 per crew member, from $1.35, according to a study made on ten ships of one shipping company. The prediction was made in November that one billion pounds of frozen foods will be produced in 1947.

The U.S. Department of Agriculture and the Ohio Experiment Station announced exceedingly high germination from seeds kept in cold storage for five years, promising security and money economy in the safeguarding of seed growth.

Further headway was made in the refrigeration of cutting oils used on machine tools. Control of the cutting oil temperatures helps maintain tolerances, increased tool life and the possibility of performing rapidly the roughing operations. Mechanical refrigeration is being used on automobile assembly lines. Steel valve inserts are shrunk by refrigeration and then are permanently fitted into cylinder blocks. Chilling to 120 degrees below zero reduces each insert .002 of an inch in size.

A study of German air conditioning and refrigeration made by the U.S. Army revealed that that country's industry was from five to ten years behind that in this country.

Air conditioning in varying degrees is being provided in new passenger ships being built by Bethlehem Steel for the American President Lines. They will have the largest air conditioning plant ever installed on board a ship. Three new 18,000-ton Delta Line passenger liners under construction in Mississippi were also air conditioned in 1946. The 17,000-ton heavy cruiser *Salem*, now being built at Quincy, will be one of the U.S. Navy's first fully air conditioned warships. The air conditioning is not to molly-coddle the personnel, the Navy reported, but to increase fighting efficiency and improve living conditions. In June, the Commander of the Eastern Seafront of the U.S. Navy, revealed plans for sealing and dehydrating with dehumidification equipment, 1,125 ships of the 16th Fleet and 1,079 units of the 19th Fleet against future use. The dehumidifying will prevent the ships from rusting while idle. Air conditioning was applied to the Lockheed *Constellation*, a pressurized transport plane; refrigeration was necessary to overcome the heat generated inside the cabin including that from occupants, and also to offset the heat resulting from friction of the plane against the air, resulting from the high speeds.

Two types of air conditioned buses, one for city service, and one for intercity trips, were built by Brill Motors Company during the year; 100 of the former type were built for San Antonio Transit Company. One hundred additional air conditioned trolley cars were ordered by Georgia Power Company following study of an experimental car during the past year. The new design calls for about one half the weight of the experimental equipment.

A new railway passenger coach with full air conditioning was shown in September by Pullman Standard Car Manufacturing Company. Each car system is complete in itself, operated independently of outside power or control. Electricity is furnished by a direct-current generator driven by a power take-off from the car axles. An aluminum refrigerator car built by the Illinois Central is 25 percent lighter than ordinary iced cars due to generous use of aluminum and glass. An electronic air filter designed especially for railroad car applications was placed on the market during the year.

See HEATING AND VENTILATION.

CLIFFORD STROCK.

ALASKA. The territory of Alaska lies in the far northwest corner of the North American continent and includes the Aleutian Islands which extend westward more than 1,200 miles toward the Kamchatka Peninsula. The area of Alaska, inclusive of inland waters, is approximately 586,400 square miles or approximately one-fifth the area of conti-

nental United States. Three-fourths of Alaska is in the North Temperate Zone.

Population. According to the 1940 census the population of Alaska was 72,524 of which whites numbered 40,066 and natives (Indians and Eskimos) 32,458. Eskimos accounted for 15,576, Indians for 11,283 and Aleuts for 5,599. The population of Alaska in 1945, excluding members of the armed forces, was estimated at 85,000. Juneau, the capital of Alaska, had a population of 5,729 in 1940.

Government and Political Status. Although Alaska was purchased from Russia in 1867 for $7,200,000 it did not become an "incorporated Territory" until 1912 when Congress passed an "Organic Act" creating the Territory of Alaska. Under its terms the Territory does not merely belong to the United States, but is a part thereof. The Constitution and laws of the United States are automatically in force with the exception of certain provisions which are clearly not applicable. The head of the Territorial Government is Governor Ernest Gruening who was appointed by the late President, F. D. Roosevelt in 1939 for a four-year term, which has since been renewed. In addition, there is a Territorial Legislature which meets for a period of 60 days biennially beginning with the fourth Monday in January of uneven years. Commencing with the 1945 session the number of members in this body has been increased to include 16 senators and 24 representatives A delegate (Edward L. Bartlett) is elected by Alaskans every two years to represent Alaska in the U.S. Congress. He is empowered to prepare and introduce legislation, and act as a member of Committees, even though he has no vote. The administration and supervision of such functions as health, welfare, education of natives, expenses of the legislature, and judiciary, has not been delegated to the local government, but has remained a Federal function. There are as many as 50 Federal agencies participating in the management of Alaska's affairs.

Events, 1946. Though President Truman, in his annual budget report on January 22, urged Congress to admit Alaska to the Union as a state, no action was taken during 1946.

The Alaska Highway from Dawson Creek, British Columbia, to Alaska, which had been built during the war at a cost of $138,000,000, came under the scrutiny of the Congressional House Roads Committee for determination as to whether any fraud or corruption was attached to its construction. After a four-month investigation, the Committee reported on March 20 that the highway was constructed as economically as could be expected and was free from any fraud. On April 3 Canada formally took over the administration of the Highway and opened it to restricted civilian traffic during October. Hotels, food stores, and gasoline stations were under construction along the Highway to accommodate an expected tourist "boom."

Late in July the United States Department of the Interior drafted a comprehensive program "for the development of Alaska's vast economic potentialities." Designed to support many times the Territory's 85,000 population, the program sought to encourage new business, industry, and agriculture. Secretary of the Interior Julius A. Krug announced he would make a ten-day inspection tour of Alaska in August to set up means for the implementation of the new program. Accompanied by key officials of the Department's agencies concerned with Alaskan affairs, Mr. King said he would discuss with local business, governmental, and labor leaders the following subjects:

1. A program of complete and reliable information relative to Alaska's position and prospects; early settlement of questions concerning the availability of public lands, and a campaign to induce business interests to invest capital in the Territory.
2. Making the Territory a full partner in effecting the program, with a greater measure of self-government.
3. The establishment of a Reconstruction Finance office to make small business loans and aid in the industrial development; expansion of road construction, rehabilitation of the Alaska Railroad, and the construction of more power projects.
4. Development of the tourist industry by making public lands available along the Alaska Highway and encouragement of private investment in the tourist industry.
5. Agricultural development through a farming program with the Department of Agriculture and the establishment of an Alaskan Research Administration to advise on farming lands and marketing conditions.
6. A public works program for the expansion of schools, hospitals, water systems, sewage disposal systems, and small boat harbors.
7. Improvement of the Government's administrative services.

The native population of Alaska faced rapid extermination, Army surgeons and American Red Cross officials claimed in September, unless strong corrective measures were taken to eliminate tuberculosis. Estimating that 40 percent of the population was tubercular and that only 15 percent reach the age of forty, the officials said that the condition was also endangering the health of the white population in Alaska. The high incidence of the disease was attributed to unhygienic living conditions, poor diet, and a lack of medical service Treatment of persons in isolated communities was made extremely difficult by bad communication and transportation facilities.

The United States West Coast shipping strike that began in early September, created a critical shortage of food in Alaska. Small quantities of food and medical supplies were carried to Alaska by trucks and airplanes, but these shipments provided only a minute portion of the Territory's needs. One relief ship with 3,900 tons of foodstuffs was permitted to leave Seattle on November 21, but an additional 2,000 tons were needed for the communities of southwestern Alaska alone. By the beginning of December, when the strike ended, shippers promised the immediate dispatch of two relief vessels from Portland, Oregon.

In mid-December the United States Department of the Interior disclosed that it had undertaken a geological search in Alaska to determine whether any sources of uranium existed. In addition, an intensive survey of the Territory's oil, coal, gold, and radium potentialities were in process. Most vital, however, were the experiments conducted with permafrost, the permanently frozen ground which underlies Alaska. Ignorance of permafrost cost the United States millions of dollars during the war in the maintenance of the Canol pipe line and Alaska Highway.

Education. Alaska has two school systems, one for white children and those of mixed blood, called the Territorial Schools, and the other for natives (Indians and Eskimos) known as the Native Schools. In the case of the former the Territory has full responsibility for the control, administration, and financing of education whereas in the latter the Federal Government, through the Office of In-

dian Affairs, assumes the educational burden. The University of Alaska, founded in 1922, had a total of 1,020 students enrolled in 1944–45. There were 11,182 students enrolled in the primary and secondary schools during 1945.

The Economy. The leading industries of Alaska in order of their importance are fishing, mining, and fur farming. The value of manufactured fishery products in 1944 was $63,260,100. Salmon fishing and packing account for 80 percent of the people employed in Alaska. The normal annual salmon pack for Alaska runs 6,000,000 cases (of 48 one-lb. cans). Alaska alone accounts for 60 percent of the world's supply of salmon. There are 93 canneries devoted to this industry and they employ 24,665 laborers. The center of the salmon industry is Ketchikan. Other fish caught in Alaskan waters and marketed commercially are herring, halibut, crabs, etc.

Mining which ranks second in importance as an industry has been seriously curtailed during World War II. The output of mineral resources during 1944 was $7,032,000. Gold, the leading mineral export, ranks second to salmon exports, but in 1943 gold mining was seriously curtailed and only $3,485,405 produced in contrast with $17,000,000 (1942) and $24,000,000 (1941). Other minerals mined in Alaska include coal, mercury, silver, copper, lead, and platinum.

Alaska's third leading industry is fur farming and the sale of furs derived from trapping. The production of furs during 1944 amounted to $2,268,658. Mink pelts and sealskins are the two leading products. The Pribilof Islands account for 85 percent of the world's supply of sealskins.

Commerce and Foreign Trade. The total commerce between the United States and Alaska since 1867 has been estimated to exceed $3,400,000,000, with minerals accounting for approximately $830,000,000 Exports of Alaskan products to the United States from 1942 to 1944 totaled $56,000,000, $70,000,000, and $68,000,000 respectively. Canned salmon accounted for $46,000,000, $52,000,000, and $50,000,000 or 76 percent of the total export trade. Other fresh or frozen fish products, such as halibut, salmon, cod, and herring, accounted for approximately 14 percent, with furs and skins and gold bullion accounting for the greater portion of the remaining 10 percent. Imports from the United States by Alaska totaled $89,000,000, $74,000,000 and $64,000,000, respectively. The principal imports were vegetable food products beverages, machinery, vehicles, metals, and manufactured goods.

Agriculture. The three principal farming areas in Alaska are located in the Kenai Peninsula (Homer Area), Tanana Valley (near Fairbanks), and the Matanuska Colony (near Palmer). The products grown are largely for local consumption, i.e. grains, vegetables, foodstuffs, livestock, dairying, poultry, and hog raising. All crops common to North America also thrive except corn, tomatoes, and orchard fruits. One of the most interesting experiments in agricultural colonization ever undertaken under Government sponsorship is the Matanuska Valley Colonization Project, fifty miles from Anchorage at the head of Cook Inlet. Of the 200 families who in May, 1935, migrated from Minnesota, Wisconsin, and Michigan only 58 remained throughout the initial period of hard toil and little return. To date approximately 7,000 acres have been cleared under trying conditions, but there have been good results for potatoes, lettuce, cabbage, etc., which are moved to Alaskan cities in carloads. The U.S. Army, particularly Fort Richardson which is located at Anchorage, purchased $750,000 in produce from Alaskan farmers during 1943. The growing season in Alaska lasts for about 115 days.

Livestock. Reindeer outnumber all other types of livestock raised in Alaska. In 1944, there were 170,000 head of reindeer of which two-thirds were owned by Indians and Eskimos. This industry is administered by the Office of Indian Affairs, in the Department of the Interior, primarily for the benefit of Alaska's natives. Other livestock include horses, cattle, hogs, and poultry.

JOSEPH P. BLANK.

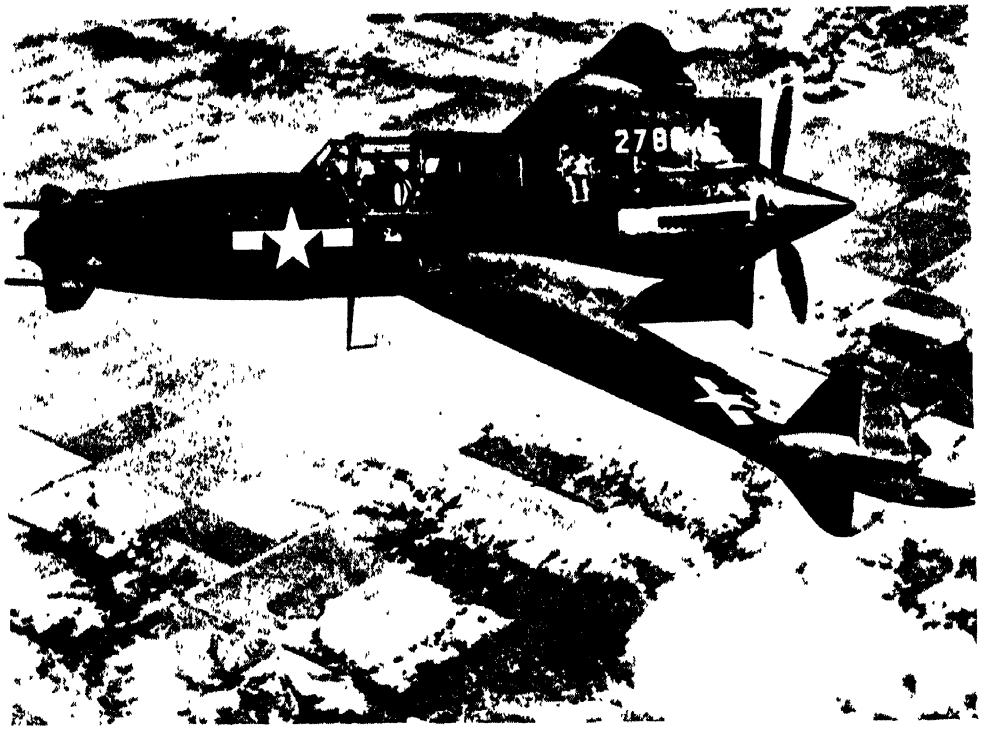
ALBANIA. A Balkan country on the east shore of the Adriatic Sea. Area: 10,629 square miles. Population: 1,063,000 (Jan. 1, 1940). Chief towns: Tirana (capital), 30,806 inhabitants in 1930; Scutari (Shkodër), 29,209; Koritsa (Korçë), 22,787; Elbasan, 13,796; Durazzo (Durrës), the chief port, 8,739.

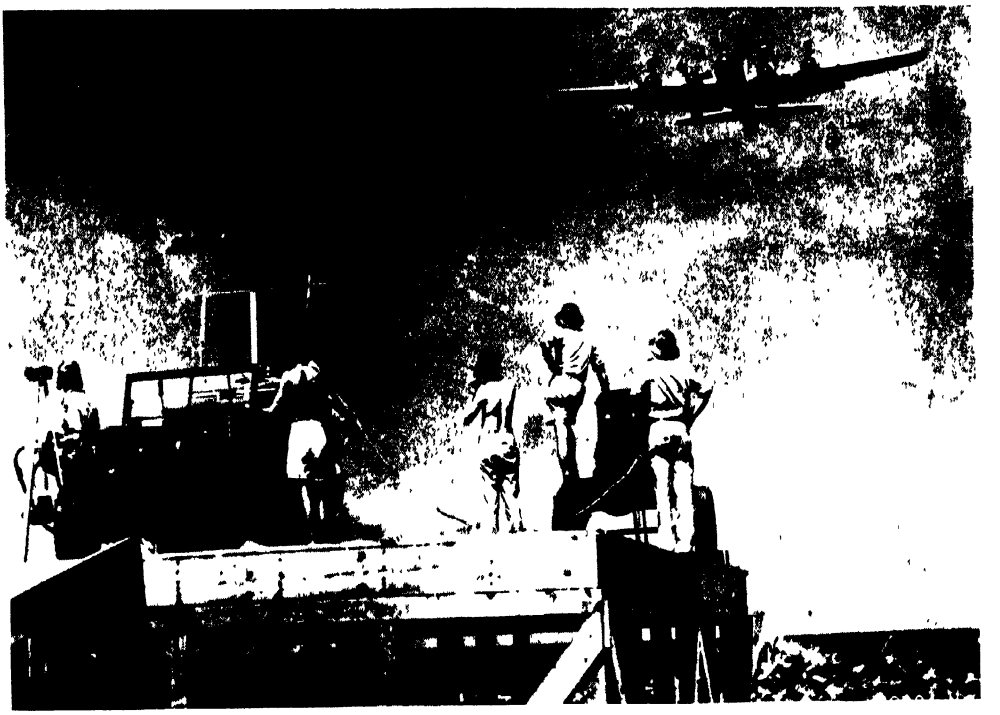
Education and Religion. Primary education is nominally compulsory, but illiteracy remains high. The population, by religions, included 688,220 Moslems, 210,313 Orthodox Christians, and 104,184 Roman Catholics.

Government. The dominant party in Albania is the National Liberation Front, led by General Enver Hoxha, who was Premier of the Provisional Government. The Governments of Great Britain, the United States and the U.S.S.R. recognized the Provisional Government on November 10, 1945. On January 12, 1946, the Constituent Assembly proclaimed Albania a Republic.

Events. In 1946 the Albanian regime transformed itself from a provisional to a constitutional government, taking on the complexion of a socialist state. Internationally, its relations with Russia, and the states friendly to Russia, have grown more intimate, and those with Great Britain have deteriorated almost to the point of open hostility. With Greece, whose orientation is towards Great Britain, relations have also been strained because of vigorous Greek claims to Southern Albania (called Northern Epirus by the Greeks), and border incidents have been alleged on both sides. Greek claims on Albania have not, however, been supported by Great Britain. The United States has generally followed British policy in regard to Albania, though it has had no incidents to complain of as have the British. On the other hand, the United States Senate has passed a resolution supporting Greek claims against Albania.

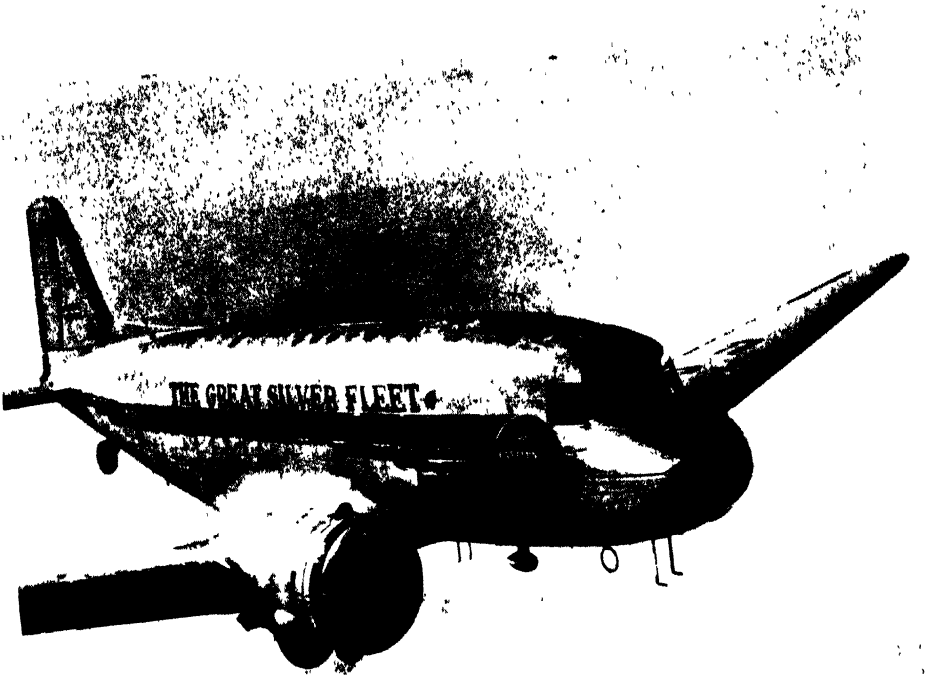
The Albanian Constituent Assembly, which had been elected on December 2, 1945, met in Tirana on January 10, 1946 and proclaimed the People's Republic of Albania. It enacted a law creating a Presidium clothed with very full powers, its composition being almost identical with the directorate of the Albanian Anti-Fascist National Liberation Council. Omer Nishani was named president of the Presidium; the other members were Koci Xoxe, Myslim Peza, Nako Spiru, Sami Baholli, Enver Hoxha, Hasan Pulo, Sejfullah Maleshova, Medar Stylla, and Manol Konomi. The Presidium approved all laws passed by the provisional government. Enver Hoxha, head of that government, resigned on January 13, and was promptly reinstated as Prime Minister. A draft constitution, similar to Yugoslavia's, was drawn up and publicized through the press and mass meetings; suggestions were solicited to make the people feel themselves participants. Freedom of press, speech, assembly, and religion was guaranteed. Military training was made compulsory, and education put under state control. Natural resources were nationalized. The right of asylum was vouchsafed foreigners "persecuted for





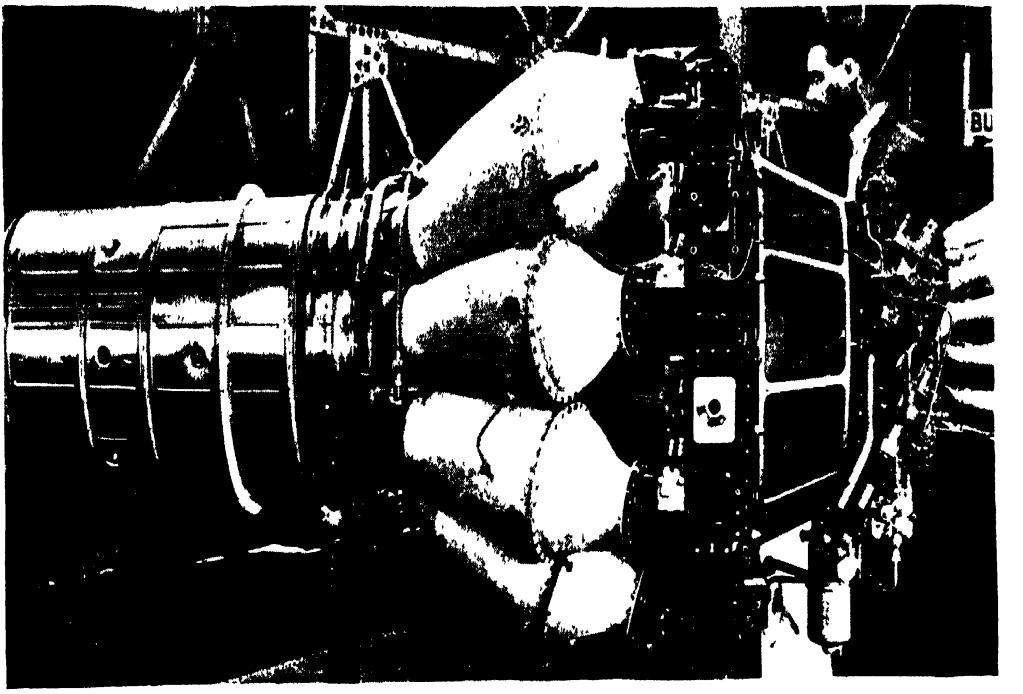
SAFETY AND EXPERIMENTATION

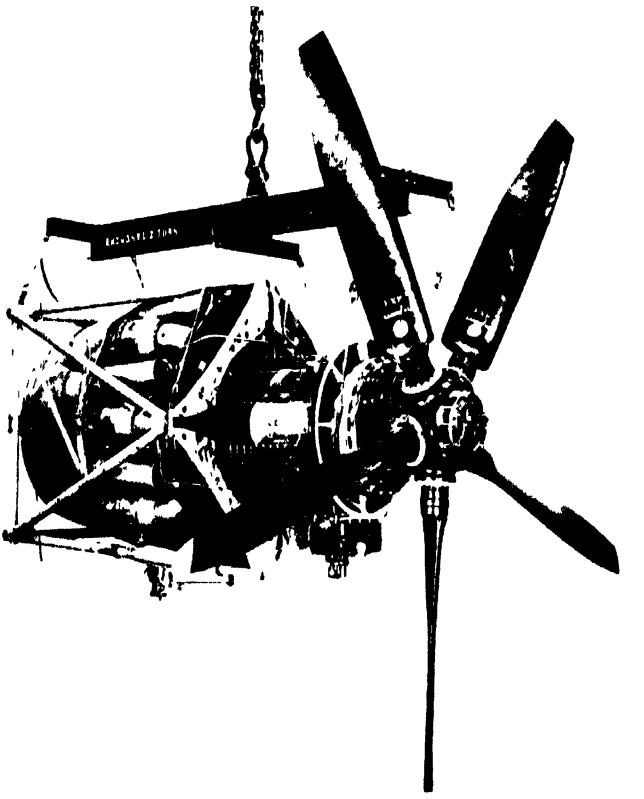
Above Curtiss Ascender (P-55) with safety feature: kick-off control Curtiss electric three-bladed propeller permitting pilot in emergency to jettison propeller. *Below·* "Mother" plane turns over control of "Drone" or "Baby" plane to Major Douglas Whittaker (on far left) with "Beeper," small radio box, emitting "beep, beep" sound in operation, at Eniwetok where First Experimental Guided Missiles Group of the U.S. Army Air Forces was based for the Atomic Bomb Tests during the summer of 1946. (*Official A.A F. Photos*)



SPEED IN THE AIR

Above: *Constellation Silverliner*, one of twenty new Lockheed luxury planes with a top speed of 340 miles per hour, capable of transporting fifty passengers (*Courtesy Eastern Air Lines, Inc.*). Below: The Republic, *P-84*, the newest jet fighter, powered by an axial flow turbine engine. (Photo by Army Air Forces).





RECENT TYPES OF AIRPLANE ENGINES

Above: Rolls-Royce Nene, a double impeller gas-turbine engine, centrifugal compressor type. *Below* Bristol Theseus I Turbojet engine with heat exchanger.

activities in favor of democracy, national liberation, and the struggle for the rights of the working classes." All citizens were declared equal, regardless of birth, social position, religion, or sex; all, over eighteen, were given the franchise. National minorities were given equal rights, and might follow their own language and cultural development. Inviolability of the person was guaranteed: "No one may be taken into custody for more than three days without decision by a tribunal or a public prosecutor." Church and state were separated, in order to abolish "the possibility of speculating with the religious feelings of the masses and cheating them in favor of the ruling classes." But religious communities retained freedom of "faith and rites." Marriages must be celebrated by the state, but couples might have religious ceremonies as well. Illegitimate children would have the same rights, and their parents the same responsibilities, as legitimate. Subsurface natural resources, forests, rivers, banks, air and postal communications, and broadcasting stations were declared "the common property of the people." Foreign trade was put under state control. "Private property and initiative in the economic life of the country are guaranteed insofar as they do not endanger the collective interests." The right of inheritance was assured, but inherited private property might be limited or expropriated when "the general interest of the country demands." Land was to belong to those who till it; "large estates can under no circumstances remain in private hands." Workers would be compensated according to the work performed and their ability; they were to be paid "by society as much as they contribute." But it was plain that the Government would put its own construction upon some of these provisions. In regard to freedom of press, speech, and assembly, Professor Sejfullah Maleshova, the (Communist) Minister of Propaganda, declared they could exist in Albania only within the framework of "the new democracy." On March 14 the new constitution was unanimously adopted by the Albanian Constituent Assembly, which thereupon renamed itself the People's Forum of the People's Republic of Albania. Hoxha immediately resigned, and was commissioned to form a new government. All the members of the new government were Communists, Hoxha himself retaining the portfolios of defense and foreign affairs as well as the premiership.

Though members of the Government charged that the British or the Catholic Church continued attempts to encourage a "fascist" opposition, the Government's measures met with no apparent opposition, but seemed to be generally well received. Among the first measures was the seizure of fluid Italian assets in Albania and the expulsion of the Italian mission headed by Ugo Turcato (for which AFHQ had given permission) on the grounds that Turcato was encouraging a separatist trend; the confiscation and nationalization of Albanian-owned mines; the encouragement of cooperatives; and the perpetual banishment of ex-King Zog. Zog, who had been in England since 1940, convinced that the Hoxha regime was temporary, went to Cairo in February, probably in order to reorganize the opposition. The Government organ *Bashkimi* openly charged British connivance in this project. On January 28 the Directorate of National Defense issued a communique, signed by Hoxha as Commander-in-Chief, announcing the arrest of leaders of the "Albanian Alliance," who were exposed as "fascist terrorists" who had cooperated with the British in efforts to overthrow the regime. A vigorous campaign was waged against the Catholic clergy, who were accused of having been founders and leaders of the "fascist and terrorist" *Bashkimi Shqipetar* (Albanian Union). Editorials against Catholics, especially Jesuits, appeared in *Bashkimi*. Open action was taken against Father Anton Harapi, who had been a member of the collaborationist Government during the war; before the elections the Government had refrained from such action. Frana Ma. Gjini, Regent of the Apostolic Delegation in Albania, addressed a memorandum to Hoxha enumerating the Church's grievances, complaining that it was unjustly maligned as fascist, and demanding free action for it. Hoxha replied that the Church was "still justifying collaboration," and proceeded with the arrest and trial of clergymen on charges of collaboration. It is not likely that Catholic dissatisfaction will be a considerable factor within the country, in view of the attitude of the Mohammedan and Orthodox groups. The Orthodox comprise some 20 percent of the population, and are the most advanced culturally, economically, and politically. They reside mostly in the south, where the National Liberation Movement began, and several leaders of Hoxha's Government are Orthodox. They are in general staunch nationalists, and do not favor annexation to Greece.

On January 28 the Security Council of the United Nations shelved Albania's request for membership. The request had been sponsored by Russia and Yugoslavia and opposed by Great Britain and Greece. In a speech on foreign policy to the People's Forum on March 24 Hoxha expressed disappointment at the rejection. He declared that Albania wished to be the chattel of no great power but truly independent. It wished to maintain friendly relations with all, but especially with Russia, Yugoslavia, and Bulgaria; its relations with Great Britain were not good.

Manifestations of friendship for Russia and its protégés have been continuous and well publicized. Government propaganda proclaims that the Soviets saved the world from Nazism and made the greatest contribution to the war effort, and that the current regimes in Yugoslavia and Bulgaria have effected great and beneficial political and economic reforms. Tito is represented as the savior of the Balkan masses, Stalin as the world's greatest man. Older people are not much influenced by this line, but the Partisans and the youth are much impressed; perhaps Zog's repressive measures had been directed chiefly at liberal and youth groups. Whereas British and Americans have been placed under restrictions, representatives of Russia and Yugoslavia are allowed freedom of movement and special privileges; they alone, for example, were allowed to visit the Kucova oil fields. Albanian army, youth, and economic delegations were received in Moscow, and Albanians enrolled in Russian institutions for military and other education. Russia has supplied Albania with a quantity of grain and munitions. Relations with Yugoslavia have also been fostered. Each country has emphasized the mutual cultural and economic ties. Yugoslavia is the only country to which substantial Albanian exports—petrol, wool, hides, and tobacco—can be directed, in return for grain and perhaps weapons. Yugoslav medical and technical missions have been sent to Albania. A Society for Cultural Collaboration between Yugoslavia and Albania has been formed at Tirana, to promote lectures and publications. There has been a special effort to popularize Tito personally, though many Albanians are suspicious of Tito's intentions towards Albania and compare him to Mussolini. Bulgaria and Czechoslovakia have also received Albanian trade,

cultural, and youth missions; and Czech technicians, probably for mining, have gone to Albania.

The regime's Communist orientation, the demands leveled against it by Britain's protégé Greece, and the virtual Allied blockade since liberation in December 1944 have exacerbated distrust of Great Britain and the United States. Albanian suspicions began in November 1943, when British agents cooperated with the (collaborationist) Balli Kombetar, and Brigadier Hodgson, chief of the British Military Mission submitted unfavorable reports on the Partisans. On April 4, 1946, relations deteriorated to the point where Great Britain declared that due to "the increasingly difficult attitude" adopted by Albania it would not send to Tirana its Minister designate, Thomas Cecil Rapp, nor receive an Albanian envoy in London. Specific complaints were that obstacles were being put in the way of the British Military Mission and of Major McIntosh, the British War Graves Commissioner, and that permission had been denied to Major W. V. G. Smith to come as Rapp's Military Adviser. Resumption of diplomatic relations was delayed when, on May 15, Albanian coastal batteries of the port of Saranda fired on two British warships passing through the Corfu channel. The British found the response to their first note unsatisfactory and delivered a second protest demanding punishment of the Albanian officer responsible, and assurances that similar instances would not recur. On October 22 two British destroyers struck mines, which caused a number of casualties among personnel, in Saranda Bay. On November 1 Albanian shore batteries inflicted a direct hit upon the superstructure of a British cruiser in the same waters. On the incident of October 22, the Albanian Government lodged a complaint with the United Nations, charging that it constituted a "flagrant violation" of Albania's integrity for the purpose of creating "incidents." The Albanians also charged that British planes had flown low over Albanian territory "with the objective of intimidating and provoking." The British Foreign Office pointed out that although the channel in question is within the Albanian three mile limit, it is recognized as an "international channel," through which warships may pass in "innocent passage." Simultaneously with their complaint of British violations the Albanians protested that Greek troops had violated Albanian territory on October 21, in disregard of protests over previous violations, especially those of July 5 and 7.

On November 11 and 14 Albania protested to the United Nations against repeated violations of its territorial waters by "large numbers" of British warships "under pretext of sweeping for mines." British Foreign Office spokesmen professed surprise at Albania's protest against the "humanitarian" enterprise of minesweeping. On November 5 the United States Department of State notified Premier Hoxha that it would withdraw its representatives from Tirana; and these representatives were in fact evacuated by American destroyers on November 14. In a note to the United States on November 14 Hoxha protested this action as unfriendly to Albania and unmerited by her. Moscow and Belgrade press and radio publicized this note, and spoke of Anglo-American "imperialist pressure" to hinder the development of "democratic" institutions in Albania.

Production, etc. Albania's chief products are corn, wheat, tobacco, olive oil, wool, petroleum, timber, hides, dairy products, and fish. There are deposits, still largely unexplored, of copper, chrome, and other minerals.

Transportation. The highway network extended 1,759 miles in 1940 (750 miles suitable for motor traffic), but this was badly disrupted by war in 1940–41. Construction of a railway between Durazzo and Elbasan, the first line in Albania, was begun in May, 1940.

MOSES HADAS.

ALIEN PROPERTY CUSTODIAN, Office of. A war agency within the Office for Emergency Management, established by executive order of Mar. 11, 1942. The Alien Property Custodian has the power to direct, manage, supervise, control, or vest property of nationals of enemy or enemy-occupied countries.

The Office has taken title to more than 44,000 patents and patent applications formerly owned by nationals of enemy countries and enemy-occupied territories. The liquidation of vested property, except patents, is being effected through a program of public sales. The patents are being licensed to American industry, as applications are received, on a nonexclusive, royalty-free basis for the life of the patent. Alien Property Custodian: James E. Markham.

ALSACE-LORRAINE. The two border provinces annexed by Germany after the Franco-Prussian War and returned to France by the Versailles Treaty (June 29, 1919). They were reoccupied by German troops in June, 1940, and placed under German civil administration on or about November 30, 1940. Area, 5,605 square miles; population (1936 census), 1,915,627. Lorraine was merged with the Saar disrict (Saarpfalz) to form the German province of Westmark. The provinces were occupied by Allied armed forces in 1944 and returned to France where they comprise the following departments: Bas-Rhin (1,848 sq. mi.; pop. 711,830); Haut-Rhin (1,354 sq. mi.; pop. 507,551); and Moselle (2,403 sq. mi.; pop. 696,246).

ALUMINUM. Primary aluminum production in the United States in 1946, the first full year of postwar production, was about 836,000,000 lb., according to preliminary estimates. Unprecedentedly heavy demand from industry and agriculture offset reduced military demand of the preceding war year, although falling far short of the 1944 production level, 1,552,892,000 lb.

The industry's wartime peak capacity of 2,350,609,000 lb. annually dropped nearly 50 percent to about 1,229,066,000 lb. in 1946. Plants built hastily by the government during the war to furnish metal for great air armadas were in most cases retired to standby status because of high operating costs. Several of the government plants, however, were sold or leased to private operators with the result that the 1946 primary metal capacity was almost four times the prewar capacity of 325,000,000 lb. annually.

Lease by the government of the Hurricane Creek, Arkansas, alumina plant and the Jones Mills, Arkansas, aluminum reduction plant to Reynolds Metals Co. (see 1945 YEAR BOOK) was followed during the early part of 1946 by lease arrangements to private companies of nearly all the other government-owned plants for which peacetime production is economically feasible. These include the Phoenix, Arizona, extrusion plant to Reynolds; the McCook, Illinois (Chicago) sheet mill to Reynolds; the Baton Rouge alumina plant, the Spokane, Washington (Trentwood), sheet mill and also the Tacoma, Washington, reduction plant to the Henry J. Kaiser interests; the Spokane (Meade) reduction plant to the Kaiser interests; the Troutdale, Oregon, reduction plant to Rey-

nolds; and several smaller plants. The dismantled Cressona, Pennsylvania, extrusion plant was sold to Aluminum Co. of America.

The postwar industrial scene was radically changed from that of prewar years, not only by greater production capacity and heavier demand, but by the emergence of large new firms as producers and users of the metal. The Aluminum Co. of America, ruled a monopoly in aluminum ingot production in violation of the Sherman Act in 1940, had only 52.4 percent of national capacity by the end of 1946. Reynolds Metals Co., primarily a producer and fabricator of finished products prior to the war, in 1946 owned or controlled 30.1 percent and Kaiser, a newcomer to the aluminum business, 17.4 percent.

Although ample facilities appeared to exist for producing the metal, itself, further expansion of mills to roll it into finished form were in prospect. Aluminum Co. of America announced plans to build a new mill at Davenport, Iowa, for rolling 120,000,000 lb. of sheets and plates a year. One interesting feature of this new plant is that it will be able to roll aluminum plate sizes to provide for marine shipbuilding needs.

The demand for aluminum, far above prewar levels as expected, was swollen by shortages of steel and other metals with which it can be used interchangeably, although at higher cost. Building and construction far outran their prewar rank as a consuming industry. In November, 1939, construction required eight percent of the aluminum produced, and it had been estimated that the postwar demand would be about nine percent. Instead, shipments of the Aluminum Co. of America from January through June, 1946, indicated that more than 11 percent was going for architectural uses. Roofing and siding, comparatively new commercial products, took more than 15 percent in direct competition with galvanized steel and other materials. While this latter demand may have been abnormally high because of the shortage of steel, aluminum going into construction during the first half of the year nevertheless took nearly one-quarter of the industry's total shipments. In 1947, it was estimated that the government's prefabricated housing program alone would require 400,000,000 lb., about one-third of the total supply. Land, air, and water transportation, which in November, 1939, used approximately 29 percent of output, and which it had been anticipated would require about 34 percent of postwar production, took only about 10.5 percent in the first part of 1946. The actual volume of metal used, however, was much greater than prewar. Demand for aircraft construction, although much greater than prewar, dropped sharply from wartime peaks. Use in truck, bus, trailer, and railroad car construction is expected to expand gradually for a number of years as manufacturing costs and regulatory barriers are overcome. Use in decks and superstructures of ships had gained a toehold by the end of the year. Plans for use in automobile body parts by some manufacturers were delayed by temporary manufacturing obstacles.

Demand for many types of finished aluminum products, such as extrusions, was so great in the latter part of 1946 that delivery lagged by 20 weeks or more. Difficulties involved in returning to production some of the metal producing plants and rolling mills leased by private producers from the government kept them below capacity operation during most of the year.

Use of secondary aluminum—remelted from scrap—kept pace with increased demand for the new metal. Reserves of wartime scrap, much of it from wrecked or obsolete aircraft, which appeared mountainous at the beginning of the year had shrunk considerably by the end. Market prices for scrap material of low alloy content, in demand by new metal makers as well as by remelters, zoomed. Total secondary aluminum production for the year was approximately 264,000,000 lb.

The Aluminum Co. of Canada, whose Quebec plant is the world's largest, found important foreign markets, including large sales to England. Its price was lowered in May to 13.25 cents per lb., delivered in Canada, compared to a United States price of 15 cents per lb. Fear expressed during bidding for surplus aluminum plants in the United States that the Canadian firm would become an important factor in the United States market were offset by the three cent per lb. tariff and by revision of Canadian currency values. Despite lower production costs, the currency action placed the Canadian plant in at least a temporary price disadvantage in United States sales. Power shortage and other factors cut the Canadian plant's operations to the rate of 300,000,000 lb. per year, about 40 per cent of capacity. It was even suggested by the United States industry that Canadian metal be "borrowed" to tide over needs of United States rolling mills for ingots during the period when the United States metal plants were being readied for resumption of production.

The basic process of making metallic aluminum —the conversion of bauxite ore ($Al_2O_3 \cdot 3H_2O$) to alumina (Al_2O_3) and subsequent reduction of the alumina—remained unchanged. Action of the Aluminum Co. of America in turning over to the government, royalty free, basic patents covering the conversion of bauxite to alumina made possible operation of the government-owned alumina plants by lessees, however.

Most aluminum metal and fabricating plants were involved in strike difficulties coincident with those which plagued the steel industry early in the year. The basic settlement which ended a month-long work stoppage in major Aluminum Co. of America plants on February 16 provided a general wage increase of 19 cents per hour. United States price remained unchanged at 15 cents per lb.

CHARLES T. POST.

AMBASSADORS AND MINISTERS. The accompanying table lists the chief diplomatic representatives from foreign countries to the United States and those representing the United States in foreign countries. [A = Ambassador; M = Minister; E = Embassy, L = Legation. Unless another city is shown, Washington, D.C., is the location of the addresses shown in column 2.]

Representative from U.S.	*Representative to U.S.*
	Afghanistan
Ely E. Palmer, M	Mr. Abdol Hosayn Aziz, M 2001–24th St., L.
	Argentina
George S. Messersmith, A	Sr. Dr. Don Oscar Ivanissevich, A 1600 New Hampshire Avenue, E.
	Australia
Robert Butler, A	Norman J. O. Makin, A 3120 Cleveland Avenue, E.
	Austria
John G. Erhardt, M	
	Belgium
Admiral Alan G. Kirk, A	Baron Silvercruys, A 2800 Foxhall Road, E.
	Bolivia
Joseph Flack, A	Sr. Don Ricardo Martinez Vargas, A 3012 Massachusetts Avenue, E.

Brazil

William D. Pawley, A — Mr. Carlos Martins, A 3000 Massachusetts Avenue, E.

Bulgaria

Maynard B. Barnes, Foreign Service Officer United States Mission

Canada

Ray Atherton, A — Mr. Hume Wrong, A 2839 Woodland Drive, E.

Chile

Claude G. Bowers, A — Sr. Don Marcial Mora, A 2305 Massachusetts Avenue, E.

China

J. Leighton Stuart, A — Dr. V. K. Wellington Koo, A "Twin Oaks," 3225 Woodley Road, E.

Colombia

John C. Wiley, A — Sr. Don Carlos Sanz de Santamaria, A 1520–20th St., E.

Costa Rica

Hallett Johnson, A — Sr. Don Francisco de P. Gutiérrez, A 2112 S St., E.

Cuba

R. Henry Norweb, A — Sr Guillermo Belt, A 2630–16th St., E.

Czechoslovakia

Laurence A. Steinhardt, A — Dr. Juraj Slávik, A 501 Aspen St., E.

Denmark

Josiah Marvel, Jr., M — Mr Henrik de Kauffmann, M 2343 Massachusetts Ave., L.

Dominican Republic

George H. Butler, A — Sr. Don Emilio Garciá Godoy, A 4530–16th St., E.

Ecuador

Robert M. Scotten, A — Senor Dr. Don Francisco Yllescas Barreiro 2125 LeRoy Place, A.

Egypt

S. Pinkney Tuck, A — Mr. Mahmoud Hassan, A 2301 Massachusetts Avenue, E.

El Salvador

John F. Simmons, A — Sr. Dr. Don Héctor David Castro, A 3400 Garfield St, E.

Estonia

Legation at Tallinn closed. — Mr. Johannes Kaiv Office of the Consulate General 118–11–84th Ave., Kew Gardens Long Island, N.Y.

Ethiopia

Felix Cole, M — Ras H S. Imru, M 2134 Kalorama Road, L.

Finland

Maxwell M. Hamilton, M — Dr K T Jutila, M 3001 Woodland Drive, L.

France

Jefferson Caffery, A — Mr Henri Bonnet, A 2221 Kalorama Road, E.

Germany

Robert D. Murphy, U.S. Political Adviser

Great Britain

O Max Gardner, A — The Rt. Hon the Lord Inverchapel, P C., G C M G., A 3100 Massachusetts Avenue, E.

Greece

Lincoln MacVeagh, A — Mr. Paul Economou-Gouras, Chargé d'Affaires ad interim 4007 Garrison St.,

Guatemala

Edwin Jackson Kyle, A — Sr. Don Jorge Garcia Granados, A 1614–18th St., E.

Haiti

Harold H. Tittmann, Jr., A — Mr Joseph D. Charles, A 4842–16th St., E.

Honduras

John D. Erwin, A — Sr. Dr. Don Julián R. Cáceres, A 4715–16th St., E.

Hungary

H. F. Arthur Schoenfeld, M — Mr. Aladár Szegedy-Maszák, M 2601–31st St., L.

Iceland

(Vacancy) — Mr. Thór Thors, M 3839 Massachusetts Avenue, L.

Iran (Persia)

George V. Allen, A — Mr. Hussein Ala, A 3003 Massachusetts Avenue, E.

Iraq

George Wadsworth, A — Mr Ali Jawdat, M 3110 Woodland Drive, L.

Ireland

David Gray, M — Mr. Robert Brennan, M Wardman Park Hotel, L.

Italy

James Clement Dunn, A — Signor Alberto Tarchiani, A 2700–16th St., E.

Japan

George Atcheson, Jr., United States Political Adviser

Latvia

Legation at Riga closed — Dr Alfred Bilmanis, M 4704–17th St., L.

Lebanon

Lowell C. Pinkerton, M — Dr Charles Malik, M 76 Kalorama Circle, L.

Liberia

Raphael O'Hara Lanier, M

Lithuania

Legation at Kaunas closed — Mr Povilas Zadeikis, M 2622–16th St., L.

Luxembourg

Admiral Alan G. Kirk, M — Mr Hugues Le Gallais, M 2200 Massachusetts Avenue, L.

Mexico

Walter Thurston, A — Sr Dr. Don Antonio Espinosa de los Monteros, A 2829–16th St., E.

Morocco

Paul H. Alling, Diplomatic Agent and Consul General with rank of Minister

Netherlands

Stanley K. Hornbeck, A — Dr. A. Loudon, A 2347 S St., E.

New Zealand

Avra M. Warren, M — Sir Carl Berendsen, K C M G., M 27 Observatory Circle, L.

Nicaragua

Fletcher Warren, A — Sr. Dr. Don Guillermo Sevilla Sacasa, A 1627 New Hampshire Avenue, E.

Norway

Charles U. Bay, A — Mr. Munthe de Morgenstierne, A 3401 Massachusetts Avenue, E.

Panama

Brig. Gen. Frank T. Hines, A — Sr. Dr. Don J. J. Vallarino, A 2601–29th St., E.

Paraguay

Willard L. Beaulac, A — Sr. Dr. Don Cesar R. Acosta, Chargé d'Affaires ad interim 2700 Porter St., E.

Peru

Prentice Cooper, A — Sr. Don Jorge Prado, A 3001 Garrison St., E.

Republic of the Philippines

Paul V. McNutt, A — Joaquin M. Elizalde The Shoreham Hotel, E.

Poland

Arthur Bliss Lane, A — Mr. Oskar Lange, A 2640–16th St., E.

	Portugal
Herman B. Baruch, A	Dr. Joao Antonio de Bianchi, A Wardman Park Hotel, E.
	Rumania
Burton Y. Berry, Foreign Service Officer United States Mission	Mr. Mihai Ralea, M 1607–23d St., L.
	Saudi Arabia
J. Rives Childs, M	Shekih Asad Al-Faqih 2800 Woodland Drive, M.
	Siam
Edwin F. Stanton, M	Mom Rajawongse Seni Pramoj, M (Absent)
	Spain
(Vacancy)	Sr Don Juan Francisco de Cárdenas, A 2801–16th St., E.
	Sweden
Louis G. Dreyfus, Jr., M	Mr Herman Eriksson, M 2249 R St., L.
	Switzerland
Leland Harrison, M	Mr. Charles Bruggmann, M 2920 Cathedral Avenue, L.
	Syria
(Vacancy)	Dr. Costi K. Zurayk, M 2215 Wyoming Avenue, L.
	Turkey
Edwin C. Wilson, A	Mr. Husseyin Ragip Baydur, A 1606–23d St, E
	Union of South Africa
Gen. Thomas Holcomb, M	Mr H T. Andrews, M 3101 Massachusetts Avenue, L.
	U.S.S.R.
Lt Gen. Walter Bedell Smith, A	Mr. Nikolai V. Novikov, A 1125–16th St, E.
	Uruguay
Joseph F. McGurk, A	Dr. Juan Carlos Blanco, A The Mayflower Hotel, E.
	Venezuela
Frank P. Corrigan, A	Sr. Dr. Don M. A. Falcón-Briceño, Chargé d'Affaires ad interim 2443 Massachusetts Avenue, E.
	Yugoslavia
Richard C. Patterson, Jr., A	Mr Sava N. Kosanovic, A 2221 R St., E.

AMERICAN LABOR PARTY. A political party, organized in 1936, which grew out of Labor's Non-Partisan League of New York. The ALP follows a policy of supporting, what it considers, the best qualified candidates in city, state and national elections. During 1946 it supported James M. Mead for Governor and Herbert H. Lehman for United States Senator in the New York State elections. State Chairman: Hyman Blumberg. State Secretary: Douglas MacMahon. Headquarters, 570 Seventh Ave., New York 18, New York.

AMERICAN LEGION, The. An organization of American veterans of both World Wars I and II. It became a two-war organization, October 29, 1942, when President Roosevelt signed Public Act 767, making honorably discharged veterans of World War II eligible for membership. The membership by Dec. 31, 1946, was composed of 66 percent World War II veterans. The oustanding declarations of the 28th National Convention held September 30 to October 4 at San Francisco came from the employment, foreign relations, rehabilitation, Americanism, Legislative and national defense committees. Most noteworthy of these mandates were: (1) an appeal to repeal limitations and ceiling imposed on the on-the-job training sections of the Legion-sponsored G.I. Bill of Rights, during the eleventh hour of the 79th Congress; (2) urging elevation of the federal security administrator to cabinet rank; (3) asking restriction of all immigration until January 1, 1948; (4) proposing that air forces be made separate and coequal with ground forces and naval forces and urging a single department for national security, with provision for Army, Navy and Air Forces on an equal level; (5) proposing a program of universal military training; (6) demanding immediate redemption of G.I. terminal leave government bonds into cash; (7) asking exemption from currently accrued federal income taxes to the first $5,000 of earned income for all honorably discharged World War II veterans with a minimum of 90 days' service; (8) endorsing and supporting positive foreign policy of the Government as expressed by Secretary of State Byrnes, demanding that our foreign policy be kept above the level of partisan politics, and condemning those who have used or who shall use the vehicle of foreign policy for any partisan political purpose.

War Effort. During the war The American Legion was active in drives resulting in the sale of hundreds of millions of dollars of war and victory bonds and in record collections of waste paper, scrap metals and other vital materials. It was also active in promotion of blood banks. The American Legion originated and played an important role in the program of civilian defense.

Special services to armed forces included distribution of phonograph records, playing cards, booklets, hospitality cards, and hometown newspapers. The American Legion collected more than 1,300,000 gifts for hospitalized servicemen and veterans through its 1946 nation-wide "Gifts for Yanks Who Gave" Christmas program.

The American Legion has always been instrumental in securing legislation to assist veterans, as well as legislation to strengthen national defense, promote Americanism, and improve the welfare of children. It has successfully championed many laws providing for adequate care of disabled veterans, war widows, and orphans. The American Legion during the second session of the 79th Congress guided a large number of veterans' measures through the high bodies. Among the major legislative achievements were: a bill to provide terminal leave for enlisted men of the armed forces; a measure liberalizing National Service Life Insurance held by veterans of World War II; a law extending social security benefits to dependents of World War II veterans; amendment of the Surplus Property Act to provide veterans with a set-aside list of items for purchase, and a priority in the purchase of the remaining items second only to that of the federal government; a measure providing a 20 percent cost-of-living increase in pensions to all disabled veterans of World War I and II, and removing reductions in pensions of hospitalized veterans; increased burial allowances for veterans; amendments attached to the G.I. Bill of Rights. It was largely responsible for legislation creating the original Veterans' Bureau, now the Veterans Administration; for the construction of government hospitals for veterans; for the passage of the Servicemen's Readjustment Bill (G.I. Bill of Rights) for World War II veterans. Legionnaires carry on nation-wide youth training programs in the interest of better future citizenship, such as Junior Baseball, Boys' State, Boys' Forum of National Government, the national high school oratorical contest, school medal awards, essay contests, and sponsorship of more than 3,000 Boy Scout Troops. Other activities of The American Legion include a continuing safety campaign, the annual poppy sale to benefit disabled veterans, demands for universal

military training, a $50,000 campaign with its auxiliary to stamp out rheumatic heart disease, active participation in National Employ-The-Physically-Handicapped Week, efforts to protect re-employment rights of veterans, conducting campaigns to secure "Gifts for Yanks Who Gave." It has always vigorously combated subversive activities through its Americanism program. The American Legion originated the annual observance of American Education Week in 1921, and has been a strong supporter of education.

The Legion enlists an army of volunteers to serve during national disasters and emergencies. It favors a stern foreign policy in dealing with aggressors. It wages a continual battle to restrict immigration. It has financially aided needy veterans and their families. Its interest in a lasting peace is reflected by the attendance of American Legion observers at all meetings of the United Nations Council. A special seven-man housing committee made a thorough study of housing conditions throughout the nation in an effort to find means to break a tight bottleneck.

The prestige of The American Legion is enhanced by an impressive list of local, county, state and national government officials and business leaders who wear The American Legion lapel button.

By Dec. 31, 1946, the Legion had reached a new membership high of 3,326,556 in 15,807 posts in the 58 departments. This represented a net gain for the year of 1,658,814 members. The American Legion Auxiliary reached a new peak of 800,320 in the same month. This was a gain of 165,492 members. Units in the Auxiliary, as of Dec. 31, 1946, numbered 10,701 as compared with about 9,513 in the previous year. Other affiliates of The American Legion are the Forty and Eight, fun and honor society, whose members numbered 72,098 on Dec. 31, 1946. The Forty and Eight on Dec. 31, 1946, had 811 voitures. Its Auxiliary counterpart, the Eight and Forty, boasted 11,175 members in 380 salons on the same date. Sons of The American Legion, at the end of 1946, had 17,202 members in 3,498 squadrons.

The American Legion has two national publications, *The American Legion Magazine* and *The National Legionnaire,* with combined circulations of more than 6,543,000 (October 24, 1946) as well as approximately 393 weekly, semi-monthly, and monthly state, district, county and post news organs. The national public relations division issues a weekly news service and news clip sheet, which goes to a mailing list of some 17,000 daily, weekly, radio, labor, and college publications.

National Commander for 1946–47: Paul H. Griffith, Uniontown, Pennsylvania. National Headquarters: 777 North Meridian Street, Indianapolis 6, Indiana. Legislative, Rehabilitation and Employment Offices: Legion-owned Building at 1608 K Street, N.W., Washington 6, D.C. Offices in New York, New York are at No. 1 Park Avenue.

ANDORRA. A small republic in the Pyrenees between France and Spain, under the joint suzerainty of the French chief executive and the Spanish Bishop of Urgel. Area, 191 square miles; population, about 6,000. Capital town, Andorra. The language spoken is Catalan. Sheep rearing is the main occupation of the people. There is a governing body called the council-general consisting of 24 members elected for 4 years (12 elected every 2 years). The council-general nominates the First Syndic (President) and Second Syndic (Vice-President).

ANGLO-EGYPTIAN SUDAN. A territory under British-Egyptian condominium in northeast Africa, lying south of Egypt in the middle and upper watershed of the Nile River. Area, 967,500 sq. mi. approximately (some of the frontier has not been delimited exactly). Capital, Khartoum.

Government. Sovereignty is shared between Great Britain and Egypt, a fact symbolized by flying the flags of the two countries together over public buildings. The Governor-General is nominally an appointee of the Egyptian Government but is in practice an important British civil or military personnage. Other high officials are also British, though in recent years more Sudanese have been admitted to the lower administration (4,020 of them were in such posts in 1944). Assisting the Governor-General there is a Council for the whole area, and for the Northern Sudan an Advisory Council (set up in 1943) of local dignitaries for consultation. There are 8 provinces, each under a governor. The southern Sudan is not regarded as sufficiently advanced politically for representative institutions. The judicial system makes provision for Mohammedan courts where Moslem law is applied. The country's defense is entrusted to the Sudan Defense Force. Units of this body participated in the reconquest of Ethiopia in 1941.

Events, 1946. By all odds the outstanding development of the year was the argument between Britain and Egypt and between divergent political forces in the Sudan, over whether the Condominium should give way to Egyptian sovereignty or to outright independence. (For account of Anglo-Egyptian negotiations in general, see EGYPT.)

The issue was brought out into the open by the arrival in Cairo on March 26 of the vanguard of a delegation which purported to represent all the political parties in the Sudan, said to number anywhere from seven to nine. Its purpose was to persuade the British and Egyptians to agree on independence for the Sudan and union under the Crown of Egypt. Impartial sources pointed out, however, that this group did not represent the sheiks, the tribal leaders or the advisory councils, and that in any case there was a widespread movement in the Sudan for complete independence *without* union to Egypt.

The position of the Labour Cabinet was stated by Foreign Secretary Bevin, also on March 26, as follows: "His Majesty's Government look forward to the day when the Sudanese will be able finally to decide their political future for themselves. It is not proposed by his Majesty's Government to influence their eventual decision in any way. His Majesty's Government have no object in the Sudan other than the true welfare of the Sudanese and this principle has likewise been proclaimed by the Egyptian Government in the Anglo-Egyptian Treaty of 1936.

"The welfare of the Sudanese cannot be secured unless a stable and disinterested administration is maintained in the Sudan. . . . In the meantime his Majesty's Government consider that no change should be made in the status of the Sudan as a result of treaty revision until the Sudanese have been consulted through constitutional channels."

Another important declaration was made by Major-General Sir Hubert Huddleston, the Governor-General, at the opening of the fifth session of the Northern Sudan Advisory Council in mid-April: "The Government aims at a free and independent Sudan, which will be able, when independence is achieved, to define for itself its relations with Britain and Egypt. With good will and a cessation of political upheavals, I see no reason

why even in the short space of the next five years a great advance should not be made, and in the ensuing five years progress should be sufficiently rapid to satisfy every one except the most extreme critics."

The leading pro-Egyptian party, called the *Ashigga,* was comprised for the most part of young intellectuals who wanted to get rid of British rule, completely and at once. On the other hand, the *Umma* party was dead set against Egyptian sovereignty. It favored complete independence, but preferred a continuation of British rule to any possibility of Egyptian control. The patron of this movement, said to have two million followers, was the Sayyed Abdel Rahman el Mahdi Pasha, religious leader and posthumous son of the Mahdi who had driven the Egyptians out of the Sudan in the early 1880's.

At the end of October the situation was aggravated by Sidky's statement, made on his return from conferring with Mr. Bevin in London (see EGYPT), that Britain had agreed to recognize Egyptian sovereignty over the Sudan. This declaration greatly excited the *Umma* party and brought about wholesale threats of resignation from Sudanese and British officials alike. Abdel Rahman was in London early in December to present the case of his followers, while on December 7 Governor-General Huddleston stated in Khartoum that he had received written assurances from Mr. Attlee that the "Sudan Protocol" left the people of that country free to choose their own future and in no way prejudiced their right to achieve independence. At the end of the year the deadlock between the two opposing and uncompromising points of view appeared complete, and it seemed probable that British rule was far from drawing to a close.

Meanwhile the British pursued their policy of raising economic and social standards. On March 11 the House of Commons voted £100,000 as the first installment of a development and welfare grant-in-aid of £2,000,000. Various projects were discussed, including the construction of a canal on the upper White Nile to circumvent the marshes and the *sudd,* thereby preventing vast quantities of water from being lost through evaporation.

During August the waters of the Blue Nile were in flood—the highest on record—and thus once more made evident the need for dams and other works along its upper reaches in Ethiopia.

The Population and Its Economy. Estimates of the population vary from 6,000,000 upward. In the northern, or open, part of the country the population is Arabized and Moslem; in the south it is largely pagan and more truly African in culture and race. Important centers are Khartoum, Omdurman, Wadi Halfa, Port Sudan (on the Red Sea), Kassala, El Obeid and El Fasher.

Some four-fifths of the world's gum arabic comes from the Sudan (exports in 1939: 23,617 tons). High-grade cotton is produced in increasing quantities: 334,164 acres under cultivation in 1944–45, from which cotton valued at £E5,201,738 was exported. More than half of this acreage is in the Gezira Irrigation Scheme, to be taken over by the Government in 1950. Other vast producing areas merely await the construction of dams and irrigation systems. Livestock statistics for 1944 were: 3,195,000 cattle; 4,808,000 sheep; 3,991,000 goats; 1,109,000 camels. There is little mining or lumbering and almost no industry. Communications are afforded by government steamers on the Nile and its tributaries, some 2,000 miles of railroad and a meager highway system.

ROBERT GALE WOOLBERT.

ANIMAL INDUSTRY, Bureau of. A Bureau of the U.S. Department of Agriculture, established in 1884, which deals with the eradication and control of animal diseases and parasites, conducts research on the production of livestock and their products, and otherwise seeks to protect and develop the livestock, meat, poultry, and related industries. Chief: Bennett T. Simms.

ANTHROPOLOGY. The year 1946 saw the return of most anthropologists in the United States to their professional status, after service in various branches of the government and the armed services during the war. Since the year was one of readjustment, it was not notable for a large quantity of research or publication. In general, the experience of the war years has given an impetus to new developments in this science, looking toward interdisciplinary collaboration in training and research. The postwar period has also stimulated some practical applications of anthropology which had been only vaguely foreshadowed previously.

Physical Anthropology. The outstanding event of the year in physical anthropology was the arrival in the United States of Dr. Ralph von Koenigswald from Java where he was incommunicado during the period of Japanese occupation. He brought with him all of the Pithecanthropus findings including Meganthropus and Robustus, as well as the teeth of Early Giant Man and the series of Soloensis skulls. Dr. Franz Weidenreich is now collaborating with him at the American Museum of Natural History in a definitive study of these important fossil types. Early in the year, the bones and artifacts associated with so-called Pekin Man (Sinanthropus), which had originally been excavated near Choukoutien, China, were found intact in the Imperial University of Tokyo whither they had been taken by the Japanese. Likewise, the original records of Dr. Davidson Black were recovered. Work was started in 1946 at the Anthropometric Laboratory of Harvard University on one hundred thousand somatype photographs of army troops, under the direction of Professor E. A. Hooton. This work should provide the largest sample yet studied of the American male population. An expedition under Alejandro Lipschutz on behalf of the Chilean Government made a collection of blood types among natives of the Chilean Archipelago. All indigenes tested showed only blood group O, according to reports. In the summer of 1946 a special six weeks seminar session for professional physical anthropologists was inaugurated at Columbia University with the financial assistance of the Viking Fund. This is planned as an annual affair.

Archaeology. The largest research project in prehistoric archaeology of 1946 was the Viru Valley Project organized under the auspices of the Institute of Andean Research, and involving the collaboration of the Bureau of American Ethnology, the Institute of Social Anthropology, Columbia University, Yale University, the American Museum of Natural History, Chicago Natural History Museum, and the Instituto de Estudios Ethnológicos of Peru. Intensive studies were carried on in the Viru Valley of Northern Peru. The most important discovery reported is a new pre-ceramic culture found in the Viru and Chicama Valleys. Although lacking pottery, these early people had agriculture.

Dr. Robert Heizer of the University of California discovered a site near Concord, California, containing artifacts and human skeletal material estimated to be about five thousand years old. Archaeological work in the West Indies continued under Dr. Irving Rouse with a four part chronology de-

termined in Trinidad showing definite links between the West Indies and Venezuela. Joint work sponsored by the National Geographic Society and the Smithsonian Institution continued under Matthew W. Stirling at the San Lorenzo site on the Rio Chiquito in Southern Mexico. Five more huge human heads sculptured from basalt were found, associated with the La Venta culture now dated as 500–800 A.D. On the high plains of Northwest Texas, Dr. E. H. Sellards reported finding a site containing twenty-seven arrowheads and knives associated with skeletons of 500 giant, extinct bison.

The Peabody Museum of Harvard University announced receipt of a bequest of $200,000 for research in Mexican and Middle American archaeology from the estate of Charles P. Bowditch.

A Caribbean archaeological congress was held in Honduras in July to discuss problems of pre-history in this area.

Ethnology and General Cultural Anthropology. The University of California published a study by the late Kurt Nimuendajú on the Eastern Timbira, a Gê tribe of Brazil. Dr. Lila O'Neale published under auspices of the Carnegie Institution the most comprehensive study yet made of native Guatemalan textiles. According to reports in the press, Boris Piotrovsky was given the Stalin prize for his work on history and culture of Urartu, an ancient civilization which flourished in Armenia about the 13th century B.C. The Institute of Social Anthropology of the Smithsonian Institution extended its collaboration with Latin American countries through the establishment of offices in Colombia and Brazil, in addition to those previously established in Mexico and Peru. The formation of a new National Institute of Social Anthropology was announced in Colombia, and during the year the Instituto Indigenista of Guatemala carried out its first field and administrative work.

Interdisciplinary Developments. One of the significant trends in postwar anthropology has been a movement toward the integration of cultural anthropology with other disciplines of the social sciences. Among concrete manifestations of this trend may be mentioned the following: September, 1946, saw the opening at Harvard of a new Department of Human Relations which included on its staff several cultural anthropologists as well as sociologists, psychologists, and other social scientists; the University of Wisconsin launched a study of modern Wisconsin culture which also involves the collaboration of anthropologists and other social scientists; the University of North Carolina at Chapel Hill added a professor of anthropology to its staff, under whom a three year study of the culture of the South will be carried out.

In June a Pacific Science Congress was held in Washington to consider scientific problems of the islands occupied as a result of the war. In this meeting anthropologists played an important part, along with other scientists in an integrated program. As a result, the National Research Council Committee on the Anthropology of Oceania was reconstituted under the chairmanship of Dr. George P. Murdock to assist in integrating anthropological research.

The National Research Council Committee on Latin American Anthropology was reorganized during the year, and published a comprehensive survey of research in geography and anthropology currently being carried forward in North American institutions. Anthropologists attended as official delegates the Inter-American Congress of Geography and History which was held at Caracas, Venezuela, in August.

Personnel. Some changes in major academic personnel occurred in 1946. Professor A. L. Kroeber retired as head of the Department at the University of California. Earlier in the year he delivered the Huxley lecture in London at the invitation of the Royal Anthropological Institute, and upon his return to this country received the degree of Sc.D. from Yale University. Professor A. M. Tozzer of Harvard was appointed to the John E. Hudson Professorship of Archaeology to succeed Professor George H. Chase, retired. Professor Fay Cooper-Cole announced his intention of retiring from the head of the Department in Chicago in 1947 to be succeeded by Dr. Robert Redfield who resigned as dean of the Division of Social Sciences in that institution in the summer of 1946. Dr. Ralph Linton took up his new post as Sterling professor at Yale.

JOHN GILLIN.

ANTIGUA. An island presidency, the largest of the British Leeward Islands. Area, 171 square miles, including the dependent islands (Barbuda and Redonda, 63 sq. mi.). Total population, January 1, 1944, 41,024. St. John (10,000 inhabitants), the capital of Antigua, is the seat of government of the Leeward Islands. In addition to representation in the federal legislative council of the Leeward Islands, Antigua has a local government consisting of an executive council (presided over by the governor) and a legislative council (presided over by the administrator) of 11 members. Administrator, Leslie Stuart Greening (September 4, 1945).

In World War II United States naval and seaplane bases were established near Parham Harbor. The base sites, leased for 99 years, were approved by the Antigua legislative council on December 20, 1940, and confirmed in a formal treaty signed in London March 27, 1941, by the British and United States Governments.

In 1943 the birth rate was 35.06 per 1,000 and the death rate 15.54. The chief products are sugar and rum. Imports in 1943 (£464,592) considerably exceeded exports (£343,255).

ALZADA COMSTOCK.

ANTITRUST DIVISION. A Division of the U.S. Department of Justice charged with the enforcement of the antitrust and 30 kindred acts. The Division receives complaints and, in cooperation with the Federal Bureau of Investigation, conducts investigations which, where appropriate, lead to criminal prosecutions or suits in equity designed to break up monopolies, restraints of trade, cartels, agreements with foreign corporations, and restrictive patent arrangements. The Small Business Section of the Division receives complaints and appeals for help from small business concerns throughout the country and, when justified, represents their interests before other Government agencies. If the investigation indicates a violation of the antitrust laws, this Section recommends appropriate action by the Division. Assistant Attorney General in charge: Wendell Berge.

AQUEDUCTS. To meet the ever increasing demands for water for domestic and industrial purposes, as well as for irrigation and power development, it becomes necessary to go farther and farther away to reach new sources of supply and then to build aqueducts to bring in this additional water. A conspicuous example is the 82-mile tunnel aqueduct to bring water from the Delaware River as an additional supply for New York City. The necessary operating equipment is being installed. Considerable power may be developed in the flow from this

aqueduct and its reservoirs, and it is proposed that use of this power may be sold to utility companies. The city has the right to use it, but the cost of machinery, equipment and transmission lines would make this uneconomical.

As Arizona has been allocated a share in the flow of the Colorado River, the State, in cooperation with the U.S. Bureau of Reclamation, is preparing plans for an aqueduct to deliver the water to Phoenix and for irrigation of the arid central plateau. The adopted project calls for a 600-foot dam in Bridge Canyon, an aqueduct consisting of a tunnel 77 miles long, and then an 80-mile main canal. In Arizona, also, the city of Tucson is to increase its water supply by a 60-mile aqueduct from a new dam and reservoir on the San Pedro River. Certain hazards of such long aqueducts are indicated by an accident in March to the Owens Valley aqueduct serving Los Angeles, when the steel pipe line was fractured in several places by boulders loosened in the mountains by earthquake shocks.

Approaching completion is the 72-mile aqueduct to bring a supplementary supply of water to San Diego, California, but some controversy has arisen over the respective rights and responsibilities of the city and the county water-district. A group of cities around San Francisco Bay will jointly increase their water supply by building an 82-mile line of 67-inch welded steel-pipe from the Pardee River, practically paralleling an older but inadequate line. The pipe is to be laid mainly underground, but for some miles of swampy land it will be supported on concrete piles. In Michigan, the two cities of Midland and Saginaw have combined to bring in a new supply from Lake Huron by an 82-mile aqueduct comprising 36-inch and 48-inch pipe. A submerged intake in the lake will be connected with the head of the aqueduct by a two-mile line of 66-inch steel pipe.

Numerous aqueducts of various types (including canals, tunnels, siphons, pipe lines and open conduits) are built by the U.S. Bureau of Reclamation in its vast irrigation program, which includes also power and flood control. The following are now under construction: (1) Salt Lake aqueduct for irrigation and municipal supply, 41 miles, from Deer Creek reservoir on the Provo River, near Provo, Utah, to the Sam Parker reservoir of Salt Lake City. (2) Coachella Canal, a branch of the All American canal system, from Yuma, Arizona, to Indio, California, 145 miles, with 84 miles completed. (3) Friant-Kerr canal, on the Central Valley project in California, from the Friant dam to Bakersfield, 160 miles, begun in 1945. (4) Contra Costa canal, 47 miles, almost complete. (5) Delta-Mendota canal, 120 miles, under construction. (6) Delta Cross canal, 50 miles. Canals (3) to (6) are on the Central Valley irrigation project, to serve the San Joaquin valley. (7) Columbia main canal, under construction, to carry water pumped from the Grand Coulee dam on the Columbia River.

Pipe lines for the transmission of oil, oil products, and natural gas may be classed as aqueducts, and there has been considerable activity in their construction. But the spectacular war work of such lines has given place to ordinary commercial progress. Thus the "Big Inch" and "Little Big Inch" lines from Texas oil fields to refineries on the Atlantic coast have been sold, and the multiple lines of lead pipe laid across the English Channel in the last stages of the war have been salvaged and melted down. However, the Federal Power Commission has authorized other long lines, as from Texas to West Virginia, 1,265 miles, and Texas to Wisconsin, 1,200 miles. One of these is to cross the Mississippi by an aerial section having three spans of 3,336 feet and one of 1,668 feet. There will be three 26-inch pipes, at 65 feet above the water to clear navigation. Other lines are to be from Monroe, Louisiana, to St. Louis, and from Texas to Los Angeles.

There has been controversy in Congress over the practical value of the Canada-Alaska oil pipe built by the U.S. Army as a war measure and now abandoned. Some 3,330 miles of oil pipe line, built by the United States forces in India, Burma, and China to serve the fighting fronts, have been sold as scrap. Venezuela is extending pipe lines. In Bolivia, a line is being built by U.S. contractors from the Camiri oil fields to a railroad terminal at Tiutui, 235 miles, with a summit elevation of 9,860 feet. Russia is reported as building several pipe lines, including one from Dashava, in the Ukraine natural-gas fields, to Kiev, 325 miles. See DAMS, WATER SUPPLY.

E. E. RUSSELL TRATMAN.

ARABIA. A large peninsula in southwestern Asia. Area, approximately 1,000,000 sq. mi.; population, upwards of 10,000,000. The political subdivisions are treated separately below. Other countries in the Middle East with Arab-speaking populations, but not included under the heading "Arabia," are Egypt, Iraq, Lebanon, Palestine, Syria and Trans-Jordan. The various parts of Arabia may be divided into two broad political categories: independent states, and territories under British sovereignty, protection or influence.

They are all inhabited by almost solidly Moslem populations, though of diverse sects. The ancient Arab stock, still overwhelmingly predominant in the interior, has been diluted with African, Indian, Iranian and other elements along the coasts. Nomadism has diminished greatly in recent decades, even in the desert interior, and today the population is mostly sedentary. Education is still largely religious in nature and confined to males, except where British or missionary influence has been felt. Economically the region is probably on the threshold of a renaissance due to the billions of barrels of oil in its subsoil, now in process of exploitation.

The two independent states are Saudi Arabia and the Yemen.

Saudi Arabia. This state occupies the interior desert as well as some of the dry coastal regions on both the Persian Gulf and the Red Sea. It is primarily the creation of its present ruler, King Ibn Saud. Following the First World War he annexed the Kingdom of the Hejaz to his original state of Nejd, thus coming into possession of the Moslem Holy Cities of Mecca and Medina, the pilgrimages to which are in normal times lucrative sources of income. There are two capitals, Mecca and Riyadh. Theoretically there is also a distinction between the governments of the Nejd and Hejaz, since the former is an absolute monarchy while the latter is nominally under a constitution.

The estimated area exceeds 700,000 sq. mi., with a population probably in excess of 5,000,000. There are several cities and even a few seaports, notably Jidda; but by and large the population does not congregate in the urban centers. Various dialects of Arabic are spoken. Ibn Saud and his desert subjects are fanatical followers of the puritanical Wahabi sect. The population is racially not entirely homogeneous, since for many centuries there has been a trade in slaves from Africa that has inevitably introduced considerable Negro blood into many parts of the country.

Saudi Arabia has only recently started to become a part of the world economy through the discovery of large oil resources now being developed by the Arabian-American Oil Co., a subsidiary of the Standard Oil Co. of California and the Texas Oil Co. The royalties from this oil production are being used to construct roads, expand irrigated areas, and in general to open up the country. Both the export and import trades of Saudi Arabia are statistically unimportant except for crude oil. The small production of cereals and animals goes almost exclusively to satisfy the local markets.

Yemen. This country, sometimes referred to as Arabia Felix, contains some 75,000 sq. mi. and a population of around 3,500,000. It is ruled by an hereditary Imam, whose capital is at San'a. Unlike Saudi Arabia, much of the Yemen is high and fairly well watered. Agriculture is carried on extensively, with such crops as barley, wheat, millet, and coffee. Coffee has been the country's principal export, much of it coming out through the port of Mocha.

Until recent years the Yemen has been virtually inaccessible to Europeans, and even today few are allowed to penetrate into the country. In the same way, the Imam has pursued a policy of almost complete isolation from world affairs. However, the Yemen has become a member of the Arab League. The population is Arabic-speaking, with some Negro blood evident here and there. There are also remnants of once important Jewish communities.

The parts of Arabia within Britain's sphere of influence show a wide variety of political structures.

Aden. This is the only British crown colony in Arabia. It is located at the southwestern tip of the peninsula at the entrance to the Red Sea. The city of Aden, the capital, lies some 100 miles east of the Straits of Bab-el-Mandeb. The island of Perim, just north of the Straits forms part of the colony, but its harbor has been closed for a number of years. The colony has an area of 80 sq. mi. and a population of over 50,000. It is administered by a Governor aided by an Executive Council. There are no representative institutions. The colony produces almost nothing for export, and its chief function in the British imperial scheme is as a naval and supply base along the short route to India. Such commerce as there is consists largely of transit trade. The barren terrain obliges the inhabitants to import even simple foodstuffs from elsewhere. In 1944, 2,741 merchant vessels stopped at Aden, as well as 2,252 local craft. The inhabitants represent a mixture of Arab, Indian, Somali, and other African peoples.

The Aden Protectorate. North and east of the crown colony there extends a vast area of some 120,000 sq. mi., known as the Aden Protectorate. It is largely desertic. The Protectorate is under the general supervision of the Governor of Aden, but the actual administration is left mostly in the hands of the local sultans. The Western Aden Protectorate is comprised of 19 Sultanates, of whom the Sultan of Lahej is the Premier Chief. The Eastern Aden Protectorate encompasses the Hadhramaut (containing the Q'aiti State of Shihr and Mukalla and the Kathiri State of Seiyun), the Mahri Sultanate of Qishn and Socotra, the Wahidi Sultanates of Bir'Ali and Balihaf, and the sheikdoms of 'Irqa and Haura. The population is probably around 600,000, most of which is concentrated in the coastal cities and in the fabulous skyscraper towns nestling in the interior valleys. Many persons of Negro ancestry are encountered in this region. Trade is on a local scale, though some of the more prominent families of the Hadhramaut have acquired fortunes in Malaya and the Dutch East Indies.

Muscat and Oman. Located in the easternmost corner of Arabia, this country is nominally an independent Sultanate. It is, however, definitely within the British sphere of influence, which is predominant throughout Southern Arabia and in the Persian Gulf area. There are more than 82,000 sq. mi. and probably 500,000 inhabitants. Most of these are Arabs, with Indians and Negroes represented in some of the coastal centers. Muscat is the capital, but Matrah is the principal commercial center for what little trade there is in the Sultanate. Most of the country is hot and quite barren, the principal exception being the higher regions around the Jebel Achdar where there is some cultivation. Dates constitute the principal product and export commodity, with rice coming first among the imports. Few vessels call at Muscat and internal communications are of a primitive sort. Few outsiders ever visit the country.

Trucial Oman. Lying north of Oman along the coast of the Persian Gulf is a relatively small area controlled by seven petty rulers known as the Trucial Sheiks. Their external affairs are under the control of Britain, represented by a Political Officer and a Residency Agent for the Trucial Coast. Altogether this area contains no more than 100,000 inhabitants.

Qatar. A sheikdom comprising the peninsula of the same name in the Persian Gulf, with a population of probably 30,000 and an area of 8,500 sq. mi. Its status *vis-à-vis* Great Britain is similar to that of the Trucial Sheiks.

Bahrein Islands. An archipelago in the Persian Gulf off the coast of Saudi Arabia. On Bahrein, the largest of the islands, there are oil wells and refinery installations owned by a subsidiary of the Standard Oil Co. of California and the Texas Company. There is some pearl diving and intensive agriculture, but the chief export is oil products. Bahrein is also the chief outlet for the trade of the neighboring parts of Saudi Arabia. There is a hereditary ruling Sheik who of course leans heavily on the advice of the British Political Agent. The population exceeds 120,000 and includes Persian, European and American communities.

Kuwait. A small territory of less than 2,000 sq. mi. wedged in between Iraq and Saudi Arabia at the northwestern corner of the Persian Gulf. The hereditary Sheik is assisted by an advisory council and a British Political Agent. The population probably exceeds 100,000. Oil was discovered in 1938 and its exploitation will undoubtedly greatly alter conditions here as it did in the Bahrein Islands.

Events, 1946. *Saudi Arabia.* In January King Ibn Saud returned the visit made by King Farouk of Egypt during the preceding year. Traveling on the Egyptian royal yacht, the Arabian monarch was in fact a guest of Farouk from the moment he left his own country. In Egypt his sojourn was marked by all the courtesies and honors befitting so historic an occasion, for it must be remembered that relations between the two states had been anything but cordial during recent years. While in Egypt Ibn Saud carried on political conversations with various personalities, including Jamal el Husseini, cousin of the exiled Grand Mufti of Jerusalem, who himself had only just returned from detention in Southern Rhodesia. The question of Ibn Saud's grant of the right of asylum to Rashid Ali el Gailani, wanted by the Iraq government on charges of leading the pro-Axis revolt of 1941, was naturally raised in the press, since it was generally believed

to be a cause of friction between Saudi Arabia and Iraq. Ibn Saud was reported to have stood on the ancient Arab tradition by which he was obliged to grant sanctuary to anyone who threw himself on his royal mercy. On leaving Egypt, Ibn Saud declared that it was the duty of all Arabs to support the Arab League.

Another milestone along the road of Saudi Arabia's emergence from isolation was the arrival in Washington late in January of Asad al Faqih, first minister from that country to the United States. He presented his credentials to President Truman on February 8. In the *New York Times* for the same day there appeared a dispatch stating that the large airfield at Dhahran, in the northeastern part of Saudi Arabia near the Persian Gulf, was nearing completion. In fact, it was ready for use by February 28, though work continued on its installations throughout the year. With the transfer of Payne Field near Cairo to Egyptian control, the Dhahran field became the most important American base between Tripoli and Karachi. In addition to American personnel, some 135 Italians from Eritrea and an equal number of Arabs were employed there. According to the agreement with Ibn Saud, the United States was to be allowed to use this field for military purposes for three years, after which it would revert to the Saudi Arabian government, though it would still be open to use by civil airlines and operated by American civilian personnel. The Americans were also maintaining two emergency fields in northern Saudi Arabia along the air routes to Palestine and Egypt.

During the summer an eleven-man financial mission from Saudi Arabia was in Washington to obtain a credit from the Export-Import Bank. It was formally announced on August 9 that the sum involved was $10,000,000. In view of Ibn Saud's orthodox religious scruples against the payment of interest, the credit bore no interest rate but was granted on a discount basis. Among the things which Ibn Saud wanted to construct with the help of foreign capital was a railroad from the Persian Gulf to his capital at Riyadh.

But while the economic and financial relations of the two countries were on this cordial plane, their political relations were said to have suffered as a reflex of the Palestine problem. On March 19 a subcommittee of the joint Anglo-American Commission of Enquiry for Palestine was told by Ibn Saud that all Arabs and Moslems would become the enemies of the United States and Great Britain if they persisted in favoring the admission of Jewish immigrants into the Holy Land. In this connection, the King recalled the promises contained in the letter he had received from President Roosevelt shortly before the latter's death (see YEAR BOOK for 1945, p. 40). When, later, the report of the joint commission was published (see PALESTINE), Ibn Saud characterized it as "an injustice without precedent."

During the American electoral campaign in the early fall, President Truman, along with other leading political figures, expressed himself on the Palestine Problem, reiterating his previous stand in favor of the immediate admission of 100,000 displaced Jews from Europe. On October 17 the Saudi Arabian legation in London released the text of a letter from Ibn Saud to the President in which the former expressed his surprise and chagrin at hearing of Mr. Truman's pro-Zionist statements, which he found to be in plain contradiction to previous official American pronouncements and commitments. A few days later the President, in his reply, denied any inconsistency and once again declared himself in favor of a "national home" for the Jews in Palestine and of the immediate entry of 100,000 European Jews into the Holy Land.

Apparently the activities of Communist or other agitators had finally penetrated into the fastnesses of desert Arabia. At any rate, a Saudi Arabian communiqué, published in Cairo on July 16, warned the people of that country against any political activity or propaganda in the "Holy Land of Islam."

In December it became known that the Standard Oil Co. of California and the Texas Co., co-owners of the Arabian-American Oil Co., were preparing to sell an important interest, said to be 40 percent, in the latter to the Standard Oil Co. of New Jersey and the Socony-Vacuum Co. The deal was expected to be consummated early in 1947.

Yemen. The last of the Arab countries to be drawn into the stream of contemporary international events was the Yemen. On February 12 the United States Department of State revealed that this ancient Arab state had requested that an American mission be sent there to open diplomatic relations. Such a mission was appointed, headed by Col. Eddy, American Minister in Jiddah, and containing experts in health, agriculture and trade. After twenty-three days of leisurely conversations in San'a the mission returned to Jiddah, where on May 11 Colonel Eddy declared that relations between the two countries had been established. He asserted, however, that while the Yemen desired foreign technical advice, it did not want any mass immigration or the creation of foreign settlements within its territory. A few days later the State Department confirmed this announcement by revealing that a provisional agreement had been entered into for the exchange of diplomatic and consular representatives, commercial and navigation rights, and reciprocal juridical protection.

On April 11 Egypt likewise entered an agreement with the Yemen for the exchange of diplomatic agents. Meanwhile, the Yemen took an increasingly active part in the affairs of the Arab League.

Early in December it was reported from Jiddah that a large-scale Soviet mission, including economic and geological experts, was expected to visit the country in the near future. Diplomatic relations between Russia and the Yemen had been opened several years before, though there was no Soviet mission in permanent residence.

A portent of coming trouble for the Yemen was contained in an appeal, made early in December by the Iman's eighth son, Prince Seif-ul-Islam Ibrahim, to the Arab League for aid in bringing his father's "despotic" rule to an end. Some observers believed that the demise or incapacity of the aged ruler would lead to a dynastic upheaval or even a civil war in the Yemen.

Bahrein and Kuwait. An old quarrel between Iran and Britain over the ownership of Bahrein Islands in the Persian Gulf was revived by the Teheran government This it did on April 18 by announcing that it would impose on all oil entering Iran from Bahrein a tax equivalent to that collected on the production of the Anglo-Iranian Oil Co. in Iran. This was a matter of some importance to the United States, since the Bahrein Petroleum Co. was owned by the Standard Oil Co. of California and the Texas Oil Co.

At the general meeting of the Anglo-Iranian Oil Co. held in London during July, the chairman, Sir William Fraser, reported: "In the course of my journey in the Middle East I visited Kuwait and had a most hospitable welcome from H. H. the

Shaikh, who has always taken the keenest interest in the Kuwait Oil Company's affairs. We operate through that company in equal partnership with Gulf Oil Company (U.S.A.) and our plans for production have recently matured. Wells have been reconditioned and tested, a production system has been installed, and a loading terminal, its submarine pipelines, have been constructed on the shores of the Persian Gulf. Shipment of crude oil began this month. Thus within a relatively short period, during much of which the war hampered or entirely suspended operations, this concession has been brought into productive operation and substantial reserves of crude oil have been proved."

ROBERT GALE WOOLBERT.

ARCHAEOLOGY. With the lifting of wartime restrictions, accounts of accidental discoveries due to the Second World War and of post-bellum excavations are more common. Most excavation reports by scholars have appeared to date only in the *Illustrated London News*, or in short summaries in learned periodicals which begin once again to function. Discoveries are reported from Greenland to South Africa. The fine gold mask of Shishak I and wrought silver coffin of Psusennes, discovered by Montet (*Tanis*, 1942), have been almost equalled by his more recent discovery of the gold mask of Endjedot, an Egyptian general and leader of King Psusennes' archers (ca. 1000 B.C.), together with three gold pendants with chains, golden bowls, and scarabs. The finest tomb yet known from the first dynasty is announced by Montet.

Orient. Excavations under the Director General of Archaeology in India, at Harappa in the Punjab, have reversed our ideas that the civilization there was that of a peaceful bourgeois democracy. Fortification walls of mud brick on a dominating mound, 400 yards long by 200 years wide, rising 50 feet above the level of the plain, indicate that the city was militant, like contemporary settlements in the Orient. The rampart was more than 36 feet thick and 40 feet high, faced on the outside with baked bricks sloping inward. These walls, with towers at intervals and unexcavated gates, present an external appearance not unlike the stone constructions of Troy. The buildings stood on a high platform of mud and mud brick, protected from floods. Because much of the site has been robbed of its bricks, the buildings must be restored from structures at Mohenjo-daro, in Sind, where organized slave or semi-slave labor under an autocratic or bureaucratic regime apparently formed the characteristic social structure. Exploration of a neighboring cemetery, where half a dozen extended skeletons were found, buried in reed shrouds in wooden coffins and surrounded by food vessels and offering-stands, indicates, from its pottery, that the civilization at Harappa lasted from ca. 2500 to 1500 B.C. The Rigveda speaks of invasions of Aryans and calls Indra, the Aryan war-god, the "fortress destroyer." He is said to have destroyed about a hundred citadels and to have been able to "rend forts as age consumes a garment." This Indo-European invasion is usually placed ca. 1500 B.C. The new excavations at Harappa help to confirm this literary account. Massacred men, women, and children in the topmost levels of Mohenjo-daro may furnish further confirmation (R. E. Mortimer Wheeler, ILN. August 20, 1946).

At Tell Harmal, six miles from Baghdad, Iraq excavators under the direction of Seton-Lloyd excavated a mound with a heavily fortified enclosure, massive buttressed walls and a single entrance flanked by life-sized lions of terracotta. Public buildings, along with circular platforms for pounding grain, suggest that this was the administrative center of an agricultural district. A large temple of Nisaba, goddess of fertility, and her consort, Khani—the two patrons of learning and written archives—was discovered, along with 1,300 clay tablets. These tablets contained legal and commercial documents, lists of officials, wages, geographical lists, lists of gods, of property, etc. The center was important in the second millennium. A clay cylinder from the site is believed to show musical notation.

China. The tomb of the bandit Emperor Wang Chieng (d. 918 A.D.) was discovered outside the west gate of Chengtu. It was a barrel-vaulted structure of three rooms—an anteroom with bronze-studded doors, the burial chamber, and a room with a seated statue of the Emperor. The Emperor's jade seal and a tablet of rectangular pieces of jade covered with writing were placed on a platform before the statue in boxes made of iron, lacquer, and silver. The platform for the casket in the burial chamber was upheld by huge muscular figures of sculptured warriors and was adorned above and below by floral reliefs and figures of musicians and dancers. Before it stood a large stone basin which held oil for the lamp of 10,000 years. The Emperor's jade belt, carved with dragons, and silver vessels were also found. The body was probably stolen by robbers in order that they might remove the jewels and jade. The tomb is an important example of T'ang construction, and gives valuable evidence for burial customs of the Emperors, up to now unknown. Treasures of jade and fine T'ang reliefs, still richly colored, add to its value.

Cyprus. Excavations by P. Dikaios at two sites near the northwest coast of Cyprus have resulted in discoveries which indicate that copper-mining was carried on in the island in the third millennium B.C.—a refutation of the claim that copper was not exploited there much before 1000 B.C. Two molds for copper oxheads, one of terracotta, the other stone; a crucible with copper slag adhering, and remains of workshops where copper-working was carried on, were discovered. The excavations close with the material found a gap of two centuries that hitherto existed between the end of the Chalcolithic period and Copper Age.

The over life-size bronze statue of Septimius Severus, probably the finest portrait statue of the Emperor extant, has been set up in the Cyprus Museum. Found in parts in 1928, it was reconstructed during the war. The Emperor is shown nude, in heroic fashion, with both hands gesticulating, apparently addressing his troops or a crowd.

Crete. Chamber tombs and beehive tombs (tholoi), mostly dating after 1200 B.C., constitute the most significant discoveries. The outstanding Tholos, dating from Minoan times, had been partly destroyed and looted, but was reused in the geometric and orientalizing periods (IX–VII C.). The latter period produced a pot filled with jewelery: a lunate crystal pendant with gold chain and amber inlays; a crescent-shaped pendant with male heads in gold at the ends; a gold diadem with male figures between lions; plaited chain bracelets ending in snake-heads; gold ingots, silver chains with duck-head terminals, crystal beads and paste scarabs—all belonging to a closed deposit of ca. 650 B.C. A clay model of a house with flat roof, windows, ventilation holes and chimney, furnishes our only house-model from a tomb. Figures in gold leaf of a male ram-bearer and part of a female one were discovered in the entrance. At Amnisos, the

harbor town of Knossos, a house dating from the XVI–XV C. with walls 10 feet high and mural paintings was found.

Greece. At Pallantion in the Peloponnese Italians uncovered two archaic temples, with wooden columns one of which had brick walls. Bases of wooden columns occur on either side of the cult statue base. At Olympia, more bronzes were discovered by the Germans: statuettes, helmets, tripods, shields, greaves, and arm-bands (*AA.* 1940–45).

At Delphi additional ivories were unearthed by the French below a staircase leading down to the Stoa of the Athenians where the ivory caches of 1939 were turned up. The new ivories represent a cock, the upper half of a small figurine, and openwork ornaments for the dress of a statuette.

A Thracian tomb at Vize brought to light a fine pair of silver cups, ornamented with storks, like those of Boscoreale; a silver cup with satyr's mask, thyrsi, etc.; a bronze helmet in the form of a youth's head; a gold laurel crown and other objects of gold and silver.

France. At Aix in Provence unusual examples of Celto-Ligurian sculpture of the second century B.C. were turned up by Germans while they were digging earthworks. The monuments are badly preserved, presumably damaged by Roman conquerors in retaliation for an attack on Marseilles in 179 B.C. by the Salians, a Gaulish tribe. The crudely carved heads represent members of this tribe: heads of warriors, one helmeted, a bas-relief with four severed heads of captives, a square monument with praying figures in niches and portraits of a Salian chieftain and his wife above.

Britain. At Low Ham in Somerset, the cold plunge (frigidarium) and Turkish bath (caldarium) of a Roman bathing establishment belonging to a fourth-century Roman villa were brought to light. In the frigidarium a well-preserved mosaic of large size was uncovered, with scenes representing the love of Dido and Aeneas. The central design shows a nude figure of Venus with Cupids; below, Dido and Aeneas locked in each other's arms; above, Aeneas and Dido with Venus and the young Ascanius in the background. On the long side riders in the hunt are depicted and the Trojan fleet at anchor off Carthage. (*ILN.* May 11, 25, August 17, 1946).

At Mildenhall, Suffolk, an amazing collection of fine Roman silver, probably of the third century A.D., was turned up by the plough. Thirty-four preserved pieces of excellent workmanship were found The finest is a large silver tray, more than two feet in diameter, adorned in the outer circle with Neo-Attic figures of Pan, reveling Maenads and Satyrs in relief, while in the inner circle sea divinities—Tritons and Nereids—are shown in revels. The head of Ocean occupies the center of the bowl. Two superb round trays of smaller size are decorated with figures of Pan, satyrs, and Maenads. Seven shallow bowls are adorned with figures of animals in relief or occasionally with ornamental patterns. In addition, there are five small finger bowls, and other bowls with dolphin handles; eight spoons, some with Christian symbols; additional bowls, some fluted, some with covers, trays, stemmed goblets, and handles. The treasure ranks with the well known Treasure of Boscoreale of the time of Tiberius, and the Treasure of Hildesheim. (*ILN.* June 29, July 6, 1946)

Italy. Under St. Peter's in Rome a large cemetery with pagan and early Christian tombs, dating from ca. 150 through the third century A.D., was found. More than a dozen mausoleums came to light with many unusual sarcophagi, some with scenes from the Old and New Testaments, others with Egyptian motives. Proof was obtained that the site usually considered the location of the circus where St. Peter was martyred, is incorrect.

Constantinople. To the Byzantine period belongs the newly excavated and restored 7th-century memorial church for the martyred Saint Euphemia (d. 307 A.D.) located near the Hippodrome. It was in the form of a hexagon with dome, and had perhaps been used earlier as a bath and later converted to a church in 616 A.D. Apses occur on five sides, the entrance on the sixth. In the eastern apse were benches for the clergy with altar and a rostrum facing them. The columns of the rostrum are adorned with mosaic work of green and red stone, a decoration hitherto unknown in Byzantine art. Important frescoes depicting the life of Euphemia occur on some of the walls.

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ARCHITECTURE. As the war curtain gradually lifted it revealed a changed architectural climate. "Purism" with its devotion to clean forms produced by the most advanced methods of industrial technology, its aspiration toward a universal language rather than merely local or national expression, was threatened by the desire to have architecture "warmer," more intimate, more easily or even vulgarly "human." In the Soviet Union the town and regional planning, which had been highly advanced through central control of the land, began to be tinged by grandiloquence. In everyday work the architects accepted the leadership of the people instead of attempting strong leadership of their own, with consequences not all unfavorable. In Great Britain the new Government was determined upon vigorous control of all land uses and also upon a program of "greenbelt" or "garden" cities. The leading advocates of these were hostile to new architectural experiment and favored cozy nineteenth-century architectural settings. War-affected Scandinavian countries had responded variously. Holland's profession was torn into factions warring against one another. In Denmark where progress had been slow and cautious there was considerable promise of interesting architecture meeting the new postwar mood. In Finland the modern architects themselves, such as Alvar Aalto, were drawn closer to their people, re-explored the vernacular building and sought to apply their best skill and technics to arrangements rooted in common needs. Where formerly they had invented needs for the wealthy, they found that in the broader field their best role was rather to refine. France was torn, and those who were radical in politics proved not to be so in architecture. So Le Corbusier, the bold between-the-wars leader, was deprived of the long-sought chance to apply his broad town planning ideas to an entire city such as war-destroyed St.

Dié or St. Lo. The overwhelming desire of the inhabitants was to retreat again into the old atmosphere which seemed mystically related to past greatness and security, or at least to live by more familiar devices.

Because of his brilliant (but unaccepted) design of the twenties for the League of Nations Palace at Geneva, Le Corbusier was chosen consultant to the United Nations in their search for a capital somewhere on the eastern or western seaboard of the United States. At years' end much research had gone into drawing up requirements but no site was yet found. Le Corbusier's major triumph, in the meantime, was vicarious, through generous acceptance of his position by architects in South America in great executed works especially in Brazil.

European countries were developing plans for their devastated cities with the likely prospect that a great many would surpass in quality some of the planless urban aggregations of the United States. The very word "planning" had been so fiercely attacked, by those who considered the existing plan-devoted Government their enemy, that the United States seemed to be lagging behind in planning. The largest single project which promised to succeed at large scale was one covering seven square miles of slums on the South Side of Chicago. It was promulgated privately by the Michael Reese Hospital which, along with numerous other medical, educational, and industrial establishments, found its very existence difficult in its run-down environment. With great skill the hospital's staff enlisted the aid of all these groups and interests, also of Negro and labor leaders, for one of the few major practical schemes in the United States which have yet been predicated on democratic occupancy by mixed income groups and by all races. The plan retains only a few streets out of the prevailing gridiron plan, depends on big self-contained super-blocks developed freely with much interior green space, and has a rational plan for schools, community centers, shopping, recreation. The hospital (now 700 beds, 2,000 staff) will retain only one corner of the total development for its own campus, to be built in stages over twenty years. After the other institutions, such as Illinois Institute of Technology have done their part the remainder is to be developed residentially, in harmony with the master plan, about half by private enterprise, half by the Chicago Housing Authority.

Residential Building. The desperate need for homes of returning veterans for their new families led to the highly controversial "Wyatt program" with the stated aim of producing 2.7 million residential units by the end of 1947 through a combination of price control, priorities, stop-orders on "non-essential" building, and encouragement to manufacturers of prefabricated houses and other essential products. Concerted opposition from conventional builders who feared the development of a prefabrication industry, from developers who did not like to forego the far more lucrative opportunities from commercial building-materials manufacturers, and finally from some consumers held up in the ensuing black market, left nothing but a shell of the Wyatt program by year's end though the expediter himself retired with a reputation for ability, energy, and integrity.

Industrial Production. This adverse trend affected some architecturally highly interesting developments, first among them a unique attempt at truly industrial house production by the ever-persistent inventor Buckminster Fuller. With the aid of Beech Aircraft Co. Fuller was able to produce a full-scale model, of vast potential importance, differing as much from current "prefabrication" as it did from conventional building. The model was round in plan, having a 36-foot diameter; its streamlined dome radically diminished wind resistance, and, along with the construction method—using a thin insulated aluminum and plexiglass shell formed on three rings suspended from a central mast—permitted a radical weight reduction to 8,000 pounds total. (Equivalent space conventionally built might weigh some 14 tons.) Such light weight and small bulk would be highly important in transportation (materials for a complete house were to be shipped in a cylinder 16 feet long, 4½ feet in diameter). Critics invited to preview found the interior surprisingly spacious, the odd shape surprisingly unobtrusive, the one-piece copper bath rooms usable, accordion doors and revolving closet space convenient. The bet was long on science, on logic, on industrial efficiency and on public response to these; but at year's end the odds were against it. A much more limited step in prefabrication, involving only a combined kitchen, bathroom and laundry plumbing stack, was essayed by Ingersoll Steel & Disc Division of Borg-Warner Corp., which set up a 12-house test at Kalamazoo, Michigan, from designs by well-known residential architects Dow, H. H. Harris, Keck, Lankton, Stone, Stubbins, R. B. Wills, Yost. Among these perhaps the house by Stubbins achieved the clearest and most easily livable organization; that by Harris the most plastic interest involving the very effective use of clerestories, though the rooms were perhaps a little tight.

Among prefabricated house ventures one which promised very good architecture was that of General Panels Corp. whose well-proportioned set of standard interchangeable floor, wall, ceiling and roof panels made possible innumerable fresh arrangements by competent architects. This was designed by Gropius and Wachsmann, being given backing by Celotex Corp.

House groups erected by conventional builders and reported during the year included three inviting houses added just before the war to the Snake Hill group at Belmont, Massachusetts, outside Boston by Carl Koch, Huson Jackson, Robert Kennedy, architects; another charming group of six much smaller homes by Paul Schweikher, at Glenview, Illinois, in a cooperative development, also done just before the war but only now reported, showed how harmoniously modern planning with spacious opened-up interiors could be made to get along with a more conventionally conceived neighborhood, by virtue of nicely proportioned pleasant pitched-roof, large-chimneyed, somewhat romantic silhouettes, absorbing the large glass areas rather than showing them off.

As an individual house, the home of Mrs. Clarence W. W. Mayhew at Piedmont, California (suburb of Oakland) was one of the year's most distinguished. There were two parallel wings, one higher, one lower, on a hillside, the upper containing bedrooms, the lower the social quarters. Both presented open glass faces to the south and more solid walls to the passerby, were connected by an enclosed stair passage (virtually a covered garden path") in a manner that made the most studied use of trees and surrounding landscape in an intimate mingling of house and garden. (Clarence W. W. Mayhew and Serge Chermayeff, associated architects.) The same trend toward unostentatious but careful placing of the house in and against Nature was found in Pietro Belluschi's achievement at Natarts Bay, Oregon, with its easy

but firm forms and the beautiful wood surfaces inside and out. A small but charmingly domestic house, again well set, was done by John E. Dinwiddie, architect, and Garrett Eckbo, landscape architect, for the Floyd family at Walnut Creek near San Francisco. Two major trends were in the direction of landscape in architecture and architecture in landscape.

Social. Very little was produced because social institutions held back for the veterans' program with more conscience than stores and commercial ventures did. Through belated publication of results a shopping- and community-center for Bagley Downs housing project at Vancouver, Washington, by Pietro Belluschi, with its happy and unpretentious arrangement of community shops, meeting-room gymnasium, lounges and game rooms, nurseries, and various service facilities has only now come to public attention. A few schools were completed in part, notably the White Oaks and Sunnybrae elementary schools in San Francisco vicinity, both by Ernest J. Kump Co., both representing high excellence in child-scaled size, in structural simplicity, in clarity of concept and execution, in sunny commodious environment for growing citizens.

Industrial. Industrial work included little that was notable. The Benjamin Electric Co. at Desplaines, Ill., set up an illustration of the best kind of "public relations" procedure now current, in the form of a pleasant low-lying curved reception- and laboratory-building behind a pleasant lawn. (Perkins & Will, architects-engineers.)

Commercial. Commercial activity was lively despite its supposed interdiction except where essential. In stores a general trend was toward a rather slap-happy throwing around of the more novel architectural "motifs" in an effect either bizarre or baroque. A notable exception was the very fine conception and detailing of the Florsheim shoe store on Fifth Avenue, New York, by Ketchum, Giná and Sharp. The corner location permitted "open-front" gold-fish bowl treatment of the interior. The long inner wall of the store was canted in plan magnifying the perspective; the ceiling, all luminous through an over-all feathery egg-crate baffle treatment, was quietly exciting and was played skillfully against other large surfaces, textured and patterned with originality and restraint. The detailing of all joints was beautifully thinlined. In the opposite trend some floors of Martin's department store in Brooklyn, by Morris Lapidus —plan of counters and alcoves, with inlaid linoleum murals, tesselated glass mosaic columns, illuminated windows scattered in the ceiling, actively patterned furniture and fixtures, all were calculated to catch direct, and even throw the attention hither and yon. Airline offices were handsomely handled in many cases, notably Western Airlines at Los Angeles (H. Roy Kelley, arch., Wm. O. Goodwin and Burwell Hamrick, associated) with a really clever doublecanted glass front to eliminate the usual street reflections; and Eastern Airlines at Boston (Marcel Breuer and Hugh Stubbins, arch's) where projecting, ceiling beams and wall protrusions of the existing structure were cleverly masked by wavy, ribbed plaster forms artfully recalling airplane conformations. A wholly different kind of achievement was Amster Yard, New York, two doors from the famous early modern house of Morris Sanders, where echoes of the French 18th century were evoked with considerable chic and chi-chi by Harold Sterner, architect. Bravura in showmanship was achieved by Carson & Lundin in Rockefeller Center NBC Broadcasting studios, with the round plaster blobs and zig-zag ceilings used for acoustical control.

At a much higher level, a triumphantly successful display was the exhibition of the art of the South Seas set up under direction of René d'Harnoncourt at the Museum of Modern Art, New York. An extraordinarily evocative use of dim light and color not only made the show a satisfying succession of stimulations but suggested the varying jungle or open-air atmospheres under which the works were originally created.

Central and South America. As reported in *Architectural Forum*, Mexico City underwent an unlimited building boom, throwing together hotels, apartment houses, office buildings, factories at a speed "exceeding the Florida land boom." Design was chiefly an exterior addition, following largely on earlier North American and European "modernistic" models, with some addition of fake Spanish re-imported from above the line as "California style."

In Colombia the same boom conditions have obtained. New office buildings in the capital city of Bogotá have been crowded on donkey-wide streets, competent example being a white stone-veneered six-story building by Cuellar, Serrano & Gomez, architects also for some pleasant modern city houses and a drugstore that would be exemplary for any United States city. The National University shows strong influence of Le Corbusier and Continental European modes in individual buildings of two decades past; but the general plan is a rather monstrous curvuncular Beaux-Arts concoction. Venezuela's socialistic government has applied some of its income from oil operations to the pride of Caracas, the capital, the El Silencio housing project begun 1942, housing 4,000 tenants in seven-story row-apartments, rather tightly placed but roomily planned, with relief from the gross monotony attending North American projects of similar size through balconies. It is nicely composed though with a quaint incongruous traditionalistic arcade at street level. (Carlos Raul Villaneuva, architect.)

Here, too, university life is politically of great importance, and the National University City has been begun outside Caracas in a splendid mountain setting under monumental plans. A sumptuous hotel in the capital is the Avila, done by the United States firm of Harrison, Fouilhoux & Abramovitz.

A highly ambitious project under construction in Brazil is the Cidade des Motores, a town for 25,000 above Rio, for which the North American firm of Paul Lester Wiener and José Luis Sert were planners and the Brazilian Otto da Rocha e Silva the architect and builder. Of world-wide importance, this represents a culmination of single-stroke made environment at large scale, in the planning and architectural language of Le Corbusier (as opposed to the approach which lets a town grow through many hands under the loose guidance of a master plan). The careful grouping of units large and small, in rows and singly, woven against the green of natural surroundings, is of great and exciting plastic richness. The individual tall apartment buildings, low-lying row-houses, buildings of all kinds are designed in large standardized wall units capable of great variation making up into colorful geometric patterns and including strong light and shade through plastic components such as the many kinds of sunbreak grills. Of quite different effect was the very fresh and perfectly extraordinary Chapel of St. Francis at Pampulha by Oscar Niemeyer, architect, and Portinari, the painter.

In the British Commonwealth, while the mother country gathered and disciplined itself for a desperate struggle for revival, dominions were more free. Australia had the great Heidelberg Military Hospital to show for the war, carefully planned for peace also (Leighton Irwin & Co., architects-engineers); New Zealand her public housing of supremely good quality within this genre in the form of large blocks of flats, ten stories high but still giving the effect of private dwellings gathered together (Gordon F. Wilson, supervising architect). India called in some American architect- and engineer-experts on large projects.

Everywhere in Europe preliminary clean-up and groundwork was in progress for the grim reconstruction. In cities such as Warsaw, where planning had gone forward right in the underground, there were ambitious up-to-the-minute plans for a forty-mile-long city, built up in orderly procession out of residential colonies (the basic cell), then neighborhoods, districts, boroughs; planners such as Szymon Syrkus had by the most ingenious stratagems kept themselves survivors in extermination camps with this single-minded purpose.

DOUGLAS HASKELL.

ARGENTINA. A republic of South America. Area: 1,079,965 square miles. Population: 13,906,694 (1943). Capital: Buenos Aires.

Argentina is the second largest of the Latin American republics. Two-thirds of its surface consists of plains; the remainder, of the Andean highlands extending north and south along its western frontier. A temperate climate prevails in most of the country, although low-altitude areas of the northwest are sub-tropical and southern Patagonia is cold, with snow falling the year around in Tierra del Fuego.

Government. Under the Constitution of 1853, a federal union of 14 provinces and 9 territories was established. The Constitution provides for a bicameral legislature composed of a Senate of 30 members, elected by provincial legislatures for 9-year terms (one-third to be elected every 3 years), and a Chamber of Deputies of 158 members directly elected for 4-year terms (one-half to be elected every 2 years). The President is chosen by electors for a 6-year term, and cannot immediately succeed himself. He is to be assisted by a Cabinet of 8 members. Provincial governors are elected by local suffrage.

President Ramón S. Castillo was overthrown by a military coup on June 4, 1943. General Pedro P. Ramírez assumed the presidency on June 6, 1943, and he was succeeded by Brig. Gen. Edelmiro J. Farrell on Mar. 10, 1944. The Congress was dissolved shortly after the 1943 revolution, and political parties were abolished.

Events, 1946. At the outset of 1946, Argentina constituted a focal point of diplomatic and political interest for the Western Hemisphere and Europe. The Presidential and Congressional elections scheduled for February 24 presumably were to decide whether the Argentine Government would cling to its rightist politics, the course followed during World War II, or veer toward political liberalism.

The candidate who would be the leading one in the elections was recognized to be Colonel Juan D. Perón, Vice-President in the current Government of General Edelmiro J. Farrell until his acceptance of the Presidential nomination and leadership of the Colonels clique, a powerful military group with ambitious political interests. Often accused of fostering Fascist ambitions and cooperating with South American nazis, Colonel Perón enjoyed the support of the *descamisados*, "the shirtless ones," the population on the lowest economic level to whom he had promised higher wages, increasing governmental benefits, and land from the holdings of the wealthy classes.

Opposing Perón was Dr. Jose Tamborini, Radical, former Senator and Minister of the Interior in the Alvear Cabinet (1925–28). Tamborini was selected in early January as the coalition candidate of the Democratic Union, composed of Socialists, Communists, Progressive Democrats, and Radicals. Except for a minority intransigent wing of the Radical party, the political opposition to Perón was solidly behind Tamborini.

The character of the campaigns, as they approached their climax, was tense, acrimonious, and violent. On January 9 Minister of the Interior Urdapilleta issued a warning to Presidential and Vice Presidential candidates that the Government might revoke its permission for uncensored radio broadcasts. The warning was made after Tamborini's running mate, Enrique Mosca, said in a broadcast that he had heard that the opposition was organizing "shock groups," including "Nazi-Fascists," born both in Argentina and abroad.

During the weeks preceding the election date, other events illustrated the national and international issues behind the program of the Farrell regime, of which Colonel Perón was conceded to be the power, and the future program of Colonel Perón, if he were to be elected President. All Argentine employers decided to institute a three-day nation-wide lockout beginning January 14, in protest against the application of a Government decree issued on December 20, 1945, providing general salary increases ranging from 10 to 25 percent and a year-end month's bonus for all employees. The move was more political than economic; most employers paid the increases and bonuses, but objected to the right of a de facto Government to impose such a burden without Congressional consent. Furthermore, the employers interpreted the Perón-inspired decree as a bid for the workers' votes. The Assembly of Argentine Industry, Commerce, and Production executed the lockout thoroughly and peacefully, and stated they would enter discussions directly with the employees. Spokesmen for the organization reiterated the employers' refusal to recognize the validity of the decree, especially with its provision forcing employers to contribute toward the support of the Government bureau that dealt with labor unions.

The United States indicated its attitude toward the wartime Argentine regime on January 17 when the Embassy in Buenos Aires released factual evidence allegedly proving the secret connections that formerly existed between the German Embassy in Buenos Aires and many Argentine newspapers. Photostatic copies of thirteen telegrams sent by the German Embassy to the German Foreign Office showed that subsidies had been paid to the newspapers, which also had received aid in the form of newsprint allotments from the Government of President Ramón S. Castillo. Within a week of the Embassy report, the Government informed newsprint importers that they would have to place six hundred tons of newsprint at the disposal of *Epocha*, *Tribuna* and *Democracia*, leading supporters of Perón's candidacy.

Though the telegrams, with one exception, referred to events that took place before the revolution of June 4, 1943, their contents were timely because several of the once-subsidized newspapers still existed, while others had transferred many of their staff members to newspapers actively sup-

porting Perón. According to the Embassy evidence, German funds had subsidized *Tribuna, Pampero, Ahora, Deutsche La Plata Zeitung,* the still active *Pueblo* and *Cabildo,* the predecessor to *Tribuna.* The financial negotiations, the Embassy report said, had been conducted by Antonio Delfino, formerly Buenos Aires agent for the Hamburg-American line and until November, 1945 one of the directors of an Argentine bank.

The campaign tours of both Presidential candidates were accompanied by violence and candidate Perón and his party had several narrow escapes from injury.

On February 24, twenty days before the elections, the Argentine Supreme Court ruled that the powerful regional offices of the Secretariat of Labor and Social Welfare, organized two years earlier under Colonel Perón, were unconstitutional since they violated rights belonging exclusively to the Provincial Governments. After the creation of the Secretariat, Colonel Perón outlawed many of the old-line unions, set up new unions and used the various regional offices as cores of the Labor Party, the mainstay of his support.

In the face of his earlier attacks on Spruille Braden, United States Assistant Secretary of State and former Ambassador to Argentina, and his repeated condemnations of "Yankee imperialism," Colonel Perón neatly swivelled his policy on February 9 and, in a 4,000 word document, declared that Argentina must seek closer relations with the "great northern nation." After inviting American capital and technicians to "develop and strengthen our progress," Colonel Perón explained his concept of Argentina's foreign policy: "It should be a fundamental task of the future Argentine Government, as I understand it, to foster a high policy of intelligence with the United States, establishing a balanced formula of sympathy and interest between the two countries, encouraging effective and mutual comprehension and dissipating the reservations presently hampering a true understanding." The statement, offered for United States consumption, was not released to the Argentine press.

On February 12, the same day that Colonel Perón formally accepted the candidacy for President and charged Mr. Braden with interfering in Argentine internal affairs and organizing resistance to the existing military Government, the United States Department of State issued the 131 page *Blue Book,* an indictment of Argentina's relations with Nazi Germany. The memorandum, entitled *Consultation Among the American Republics With Respect to the Argentine Situation,* charged that Argentina (1) not only supported the German war effort after Pearl Harbor, but continued to give active aid after Argentina's declaration of war on Germany; (2) at the time of the *Blue Book's* publication, protected powerful Nazi interests seeking a resurgence of world-wide Nazism; (3) formed with Nazi groups a neo-fascist state; (4) plotted to obtain war materiel from Germany via Spain in exchange for critical war materials shipped to Germany through Spain. Colonel Perón, President Farrell, and former Presidents Pedro P. Ramírez and Ramón Castillo were cited in the memorandum as agents who sought to form a Nazi anti-United States bloc in South America.

"In Argentina," the memorandum said, "the Germans have constructed a complete duplicate of the economic structure for war which they had in Germany. They possess today in Argentina the economic organization—industrial, commercial, and agricultural—which they need to provide a base for the reconstitution of German aggressive power during the period when the homeland is still occupied."

The memorandum outlined the difficulties faced by the United States and Great Britain in obtaining the expulsion from Argentina of many known German agents. Until January, 1946 none had been deported, although the Argentine Foreign Minister assured the Department of State that he hoped to repatriate as many as forty agents. As for the current situation, the *Blue Book* accused the Argentine Government of sheltering German economic interests, adding that the sequestration of German firms and assets following Argentina's declaration of war had merely provided a convenient refuge for them.

In Argentina the *Blue Book* explosion was met by consternation in the anti-Perón press and vehement denials in the Perónista press. On February 14 Colonel Perón retaliated to the *Blue Book* by accusing Mr. Braden of heading a vast spy ring and financing political campaigns in Argentina by extracting money from Argentines in exchange for the removal of their names from the blacklist. He further stated that a former United States military attaché, Brig. Gen. John Lang, had been expelled from Argentina by the military Government. In a broadcast on the same evening, Foreign Minister Juan I. Cooke claimed that the *Blue Book* charges were false and represented interference with the coming February 24 elections.

On February 22 Colonel Perón continued his reply to the *Blue Book* by releasing a *Blue and White Book,* a 127-page memorandum accompanied by photostatic copies of six documents, purportedly proving that Brig. Gen. Lang and several former Embassy officials had engaged in espionage activities. The document stated that Mr. Braden betrayed the Good Neighbor Policy and attempted to establish a puppet Government in Argentina.

Although the publication of the *Blue Book* was undoubtedly timed to influence the elections, most circles in Washington and Buenos Aires were dubious about its actual power. It was felt that the *Blue Book* revelations would sway only a small minority of voters because of the wide breach that existed between the two inalterably-opposed candidates. Actually, Colonel Perón used the *Blue Book* as political credit, accusing the United States of dabbling in Argentine politics and supercharging the nationalistic spirit of his followers by declaring that a vote for Tamborini was a vote for Braden.

On February 19 the Argentine Army, Navy, and Air Force took over the job of insuring an honest election. Military commanders also assumed jurisdiction over the Federal police and the local police in the fourteen provinces. Their power was to end on the day after elections and thereafter they were to guard the ballot boxes until the tabulation was completed.

Contrary to expectations of fraud and disturbances the election on February 24 proved to be the most orderly and peaceful in Argentina's history. By the first week in March all parties conceded Perón's victory. The count showed 1,479,000 for Perón to Tamborini's 1,210,000, a plurality of about 20 percent. The distribution of votes, however, gave President-elect Perón an electoral landslide of 304 to 72. Candidates running on the Perón ticket won the governorships in all fourteen provinces and a majority of 109 to 49 in the Chamber of Deputies. The bulk of Colonel Perón's votes was given by the industrial and agricultural workers.

The weight of President-elect Perón's influence was felt during March 1–23 in a national meat-

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workers' strike which held up the shipments of 75,000 tons of meat to Europe. The 60,000 packing house workers belonging to a Perónista union struck for improved working conditions and enforcement of the famous December 1945 decree which provided for higher wages and the year's end bonus. The nine meat-packing houses, all owned by Anglo-American firms at first refused to make the payments but finally complied with the union's demands. During the first week of the strike the Communists, who had vigorously opposed Perón during the election campaigns, swung in behind the packing house workers and supported the union's demands.

On the same day of the strike settlement, the Supreme Court decided that the pay raise and bonus decree were unconstitutional on the basis that the Government's legislative powers were limited to emergency cases, a condition that did not exist at the time of the decree.

The United States underscored its policy toward a Perón regime in Argentina when on March 21, it informed all Latin American countries with the exception of Argentina that it would not sign any treaty for the maintenance of peace or hemispheric security if the Argentine Government, headed by President-elect Perón were to be one of the signatories. The formal statement met with a somewhat negative reception in Latin American capitals. Most of the apathy was founded on the fact that the declaration was impotent since the Rio de Janiero Conference, originally planned for March, had been indefinitely postponed and furthermore, the statement was incompatible with the position of the United States at the San Francisco Conference less than a year previously, when it had forced the admission of Argentina into the United Nations.

The nationalization of the Central Bank of Argentina was decreed suddenly on March 25 by President Farrell as the Government reached the limit of its legal borrowing power with that agency. Organized in 1935 to control currency and international exchange rates, the stock of the Bank was held by the Government and private interests with a large portion owned by foreign banks. A few weeks prior to the decree, the Bank had issued a report sharply criticizing the Government's spending program. The Government announced that the express purpose behind the decree was to unify and correlate the principles of the State's political economy with the monetary policy. Nationalization eliminated the restriction which permitted the State to borrow no more than a tenth of its average revenue from the Central Bank. By taking over the Bank, the State was given "its sovereign right to issue money" and the right to borrow sufficient money to meet its needs.

The tenor of Argentina's replies to the *Blue Book's* allegations abruptly changed on March 29 when appeal was made to the United States not to prolong the inter-American crisis that had arisen from the charges of Axis collaboration. Issuing the report on the day after the confirmation of Perón's victory, the Argentine Government said that it had fulfilled all international commitments and that the victory of Perón in a democratic election refuted the charges of totalitarianism. Calling for a return to friendship and cooperation, the memorandum stated that the issues at stake were clarified by the election and the situation demanded a return to Rooseveltian harmony. The reply was delivered to all American diplomatic missions, except the United States.

The nature of the February elections and the reluctance of several American republics to accept the *Blue Book* in toto caused the United States to shift its attitude towards Argentina. In April United States Secretary of State James F. Byrnes declared that the United States, in concert with the majority of the Republics of the Western Hemisphere, was willing to participate with Argentina in a hemispheric defense treaty, providing that the new Perón Government relieved Argentina of "Axis influences" that threatened the security of the inter-American system. It appeared that a majority of the members of the Pan American Union, led by Brazil and Chile, persuaded the United States to give the new Argentine Government an opportunity to show good faith and break the deadlock that threatened to forbid any future hemispheric conference. In reference to the Axis influences, the statement said that "Were such unequivocal and sustained performance to ensue, the road would be open to that 'complete unity of the peoples of America,' and the negotiation and the signature of a mutual assistance pact. But there must be deeds and not merely promises."

On the following day Argentine Foreign Minister Juan Cooke gave the statement a cool reception, pointing out that Argentina had already complied with her agreements on the Mexico City conference. Further repudiation of the *Blue Book* charges came on April 17 in a statement calling "absurd" any prolongation of the *Blue Book* dispute. Hoping for early resumption of good neighborliness, Dr. Cooke wrote that the Argentine Government has as "its firm purpose to maintain its traditionally pacifist ideals and its unequivocal democratic faith."

Conceding that Argentina had, and probably still has, some totalitarian sympathizers, as does have every country in the world, Dr. Cooke said that Argentina's policy of neutrality might have been wrong, but that it was the expression of the people's will. There were German spies in Argentina, he admitted, as there were in the United States during the war. He referred to I. G. Farben, "one of the most powerful world trusts, . . . which in the direct service of Nazism penetrated into all the circles of that country [United States]."

The Government absorbed the remainder of Argentina's banking system by decree on April 24 when it placed the entire banking system, including private deposits (totalling eight billion pesos) under the Government's control. The decree established a rediscount and control system that enabled it to withhold loans from any individual or institution, making possible the government's strict control over the nation's economy. The decree's provision that limited loans by private banks to the amount of their capital seriously curtailed the activities of foreign banks.

The government's decree nationalizing the autonomous universities of Argentina on May 4 met with a flurry of protest from students and teachers. As Federal interventors took over the direction of six major Argentine universities, police detachments were strengthened and orders issued prohibiting student meetings on the campuses. The National Radical party, a close second to Perón's party in the elections, charged that the Perónistas were using the de facto Government and the state of siege to violate laws openly and to make basic changes that would later be legalized by the strongly Perónista congress.

On June 4 while a million people cheered in the streets, Juan D. Perón was inaugurated as the twenty-ninth President of Argentina. In his inaugural speech he pledged to maintain Argentina's

sovereignty, promised to maintain the country's institutions, traditions, and system of free enterprise, and called for legalization and implementation of the military government's social reform and labor program.

The new cabinet, sworn in after President Perón, was as follows: Interior, Angel C. Borlenghi; Foreign Affairs, Juan A. Bramuglia; Finance, Ramon A. Cereijo; Justice and Education, Belisario Cache Piran; Public Works, General Juan Pistarini; Agriculture, Juan C. Picazo Elordy; War, General Humberto Sosa Molina; Marine, Navy Captain Fidel L. Anadon; Aviation, Air Brigadier Bartolome de la Colina Public Health, Ramon Carrillo; Industry and Commerce, Jose Maria Freyre.

Two days after his inauguration President Perón established diplomatic relations with the Soviet Union after twenty-eight years of non-recognition between the two countries that had begun with the Bolshevik Revolution.

The economic tension between Argentina and the United States grew somewhat relaxed on June 25 when Foreign Minister Juan A. Bramuglia announced that the United States Government had agreed to release $600,000,000 in "frozen funds" held by the Federal Reserve System during the war when it was thought that Nazi Government officials might be transferring funds to Argentine banks. The move was attributed to United States Ambassador George S. Messersmith, appointed to Argentina in April.

In his first address to the business session of Congress on June 26, President Perón put before the legislature the job of deciding on the approval of the Mexico City continental-solidarity and San Francisco–United Nations agreements, and pointed out that the recent release of Argentine funds in the United States did not alter his attitude that the matter was purely a Congressional concern. His address called for an investigation of the Argentine press, women's suffrage, the semi-socialization of medicine, free university education for the deserving poor, an expanded merchant fleet, increased selective immigration, aid for the would-be small land owners, a minimum-wage law, and a program of agrarian reform.

Another change in President Perón's position was visible in his remarks to a private session of the majority bloc in the Chamber of Deputies on July 17 to the effect that if another war broke out, Argentina would participate on the side of the United States. The statement was a decided shift in policy and the most noteworthy overture in the direction of the United States made by President Perón. The local newspapers in a report of the speech also attributed to Perón an attack on the British attitude, urging that Congress make no motion to renew the Runciman Treaty granting Great Britain special trade benefits, which was to expire on August 20.

The alleged speech brought no comment from diplomatic circles. The Washington representatives were apparently waiting for action on the approval of the Chapultepec agreement, the deportation of Nazi elements to Germany for trial, and the recent demand for the expulsion of 100 German Nazi school teachers still free in Argentina. On August 1 President Perón publicly aired his closed-door pro-United States statement and declared, "Argentina is an American country, placed geographically in the American continent, and consequently my country forms an integral part of what might be called the 'American line.' We all know that there is the potential danger of other conflicts and if, unhappily, the statesmen of the world cannot prevent it, Argentina will be found ranged alongside of the United States and the other American nations." He ridiculed the contention that Argentina was trying to erect an anti-United States bloc and stressed the necessity for Congressional ratification of Chapultepec agreements. Deploring the deterioration of Argentine–United States relations, he said that the three points of issue—enemy schools and institutions, enemy business concerns, and undesirable enemy residents—were being quickly eliminated by the Government.

Ratification by the Argentine Senate of the Act of Chapultepec and the United Nations Charter on August 19 was effected as crowds in the streets and spectators in the galleries of the Senate demonstrated against the unanimous vote of approval. When the problem of ratification came up before the Chamber of Deputies on August 28, a necessary two-thirds majority was three votes short of bringing the matter on the agenda and the issue was postponed indefinitely.

Ratification by the Senate of the two agreements caused a rift in the Perónista parties. President Perón had been supported in the elections by extreme nationalists who feared that any pact would endanger Argentine sovereignty. Despite the disapproval of this strong element among his backers and the refusal of the Radicals to vote for a Perón-sponsored act, President Perón made his power felt in an all-night session of the Chamber of Deputies on August 30 by forcing passage of the two measures. On the following day Foreign Minister Juan A. Bramuglia said that Argentina had begun steps that would warrant her full acceptance in the international postwar society, asserting that all Nazi industries were being eliminated, German and Japanese schools had already been dealt with, and the Argentine courts were disposing of the question of Axis nationals. The intense nationalism in Buenos Aires that followed the approval of the two international pacts resulted in the police's silencing of the vigorous anti-United States Nationalist Liberating Alliance on September 1 for "repeated resistance to authority."

One of the largest German-owned firms in Argentina, the Sieman-Schuckert Electric Company, was ordered returned to its owners by a court decision on September 20. The seizure of the firm by the Government was disapproved by the Supreme Court which ruled that the inviolability of property was based on the Constitution. In the face of this ruling, Foreign Minister Bramuglia announced that the Government would order the nationalization or liquidation of fifty Axis firms by the end of October. Declaring that the Government was determined to carry out the Chapultepec pledges, Dr. Bramuglia said that of the ninety-eight Axis agents requested by the Allies, twenty-five had been repatriated, thirty-nine were under trial, seven had their Argentine citizenship removed, and eight cases were under study. Six others were fugitives and three were in prison for other offenses.

On October 30 Ludwig Freude, rated by the *Blue Book* as the leading Nazi in Argentina, was completely absolved by Presidential decree of all espionage charges and all of his seized properties and funds were ordered returned to him.

The Supreme Court of Argentina during 1946 often hampered many of President Perón's measures and proved a constant rein on his plans for the nationalization of Argentina's economy. The pro-Perón majority in the Chamber of Deputies began a debate on September 18 to impeach four of the five members of the Court on the charge that the Court failed to do its duty when it recognized

the legality of two de facto Governments in 1930 and 1943. After an all-night session, the motion was passed by a 104 to 47 vote. Resolution was also passed to enlarge the judicial body. The anti-Perón press in Argentina asserted that the procedure was a totalitarian move to centralize control of the judiciary in the executive's hands, while the pro-Perón organs said that the move was Rooseveltian and the Court was ultranationalistic and reactionary.

The blueprint of an ambitious five-year plan for the industrialization and economic development of Argentina was presented in the form of twenty-seven bills by President Perón to a special session of Congress on October 21. Scheduled to start functioning by January 1, 1947, the plan intends to revamp Argentina's entire economy and penetrate to "every department of Argentine life, from the three angles of Government, national defense, and general economy.

Along with an accelerated industrialization program, the plan includes reorganization of the Government, increased official control over the nation's economy, reorganization of the transportation system; unprecedented schemes for irrigation and colonization; elaborate extension of the roads system; intensification of foreign commerce; an extensive program of technical education; and reorganization of the consular and diplomatic corps. Financed by bonds and other means at an estimated cost of $1,665,000,000, excluding military expenditures, the plan seeks a 43.3 percent increase in industrially-derived income over the 1943 figure, 50.8 percent increase in industrial wages and salary, a 30 percent increase in the number of workers and a 50 percent increase in power installations.

The complete modernization of the armed forces is to be accompanied by the construction of military factories. The plan envisions the educational system under Presidential control with the rectors of all universities named by the President. A $156,700,000 public works program, employing estimated hundreds of thousands of workers, calls for the construction of hospitals and clinics and semi-socialization of medicine, under which free medical assistance will be given those unable to pay. The Government will control, distribute and establish prices for grains and oil-producing vegetables and seeds. The Government would make drugs and sell them at cost. Women would be permitted to vote.

Denying charges that the plan was totalitarian, President Perón labeled it "constructive democracy, with a better balance between the individual and the state." On November 16 the Senate approved the plan's first two bills, one providing for the creation of a body of state's attorneys, which will carry on all Government legal matters, and the other enfranchising non-commissioned officers of the armed forces.

On November 29 a conscription bill, making all Argentines between the ages of twelve and twenty subject to army and navy training at Presidential discretion, was passed by the Chamber of Deputies and forwarded to the Senate. The bill provided for the compulsory military service of all men between the ages of twenty and twenty-two and the creation of an auxiliary service for women, subject to peacetime call. The over-all provisions of the bill gave the Government the power to conscript all persons between the ages of twelve and fifty for peacetime military service.

Relations with the United States. Argentina's relations with the United States suffered constant strain during 1946. In reply to the *Blue Book* charges (see above) and the repeated direct and indirect statements of Mr. Braden in reference to "Argentine fascism," Presidential candidate Perón accused the United States with complicity in the smuggling of arms from Uruguay to Argentina. The United States Department of State questioned the charge and requested the Argentine Government under President Farrell to endorse or repudiate the accusations. On February 13 Senator Joseph F. Guffey of Pennsylvania called for an immediate severance of relations with Argentina.

Despite the critical state of relations, the United States continued to send shipments of tires, farm machinery, and other equipment to Argentina. United States Secretary of State James F. Byrnes explained in mid-February that the shipments were necessary to facilitate the movement of wheat to the Argentine seaboard and thence to Europe for much needed relief.

The vacant ambassadorship that existed in Buenos Aires after Mr. Branden departed late in 1945 was filled in April by George S. Messersmith, former Ambassador to Mexico. The difficult diplomatic task facing Ambassador Messersmith was evident during the Presidential inaugural ceremonies in Buenos Aires when the Ambassador and his party were vigorously "booed." In his first address in Argentina on July 4 the Ambassador called for the wholehearted cooperation of Argentina in the United Nations and Pan American systems and expressed the wish that Argentina cease delaying food shipments to Europe.

At the time that Ambassador Messersmith was attempting to further a mutual understanding between his country and Argentina, General Carlos von der Becke, retired wartime Argentine chief of staff, made an extensive visit to the United States. Although his visit was publicly announced as "unofficial," the concensus of opinion among newspaper writers in Washington was that the General proposed to present evidence proving that Argentina was purging herself of Nazi influences and hoped to establish the basis for a United States military mission to train and equip the Argentine army.

Dr. Oscar Ivanissevich, intimate of President Perón and prominent Buenos Aires surgeon, arrived in Washington on August 15 to take up his duties as Ambassador. A few weeks after his arrival, Dr. Ivanessevich portrayed the Government of President Perón as one "struggling for the same democratic principles which were found on the banner of President Roosevelt: 'Every man a man, not an outcast, nor a slave.'" Late in August the Ambassador extended an invitation to United States labor leaders to visit Argentina to observe the functioning of labor unions.

The issue surrounding the supplying of arms and the signing of a military pact with Argentina, strenuously opposed by Assistant Secretary of State Braden, was clarified on October 22 by Secretary of State Byrnes. Coming to the aid of Mr. Braden, whose irrevocable stand had caused rumors of his resignation, Mr. Byrnes reasserted the policy of April 8, calling for deeds, not promises. As soon as President Perón acted on the elimination of key Nazi agents and businesses in Argentina, Mr. Byrnes said, the United States and other Latin American republics would proceed with the Rio de Janiero conference at which the hemisphere defense pact would be signed.

President Perón entered the internal political scene of the United States on November 28 when Andrew J. Higgins, war-renowned New Orleans shipbuilder, admitted that he had joined President Perón in agitating for the removal of Mr. Braden

from the Department of State. Knowledge of this was revealed by the publication of two letters sent by Mr. Higgins to Senator Tom Connally, Chairman of the Senate Foreign Relations Committee. One letter was written by President Perón to Mr. Higgins; the other, an accompanying letter, was from Mr. Higgins to Senator Connally. President Perón's letter characterized Mr. Braden as a "fifth column" impeding friendly relations between the two countries and suggested that his "disappearance" from American politics would solve the problem. In Mr. Higgins's letter, the Perón administration was praised and declaration was made that "the long-built-up 'good neighbor policy' had been knocked to hell" by Mr. Braden.

Relations with Great Britain. Except for Great Britain's support of the *Blue Book*, Argentine-British relations were essentially economic. Great Britain depended on Argentina for one-third of her meat supply, half of her shoe leather, and considerable quantities of grain. In addition, British interests held nearly $800,000,000 in Argentine investments, mostly railroads. Argentina, on the other hand, held at least $520,000,000 in war-accumulated credits in Great Britain.

The arrival late in June of two British economic missions, headed by Sir Percival Leisching, Second Secretary of the British Board of Trade, and Sir Wilfrid G. Eady, ranking British Treasury official, indicated the importance to Great Britain to make arrangements which would insure her obtaining the necessary consumer goods from Argentina and, at the same time, to arrange markets for her postwar manufactured exports.

On September 17 an Anglo-Argentine trade agreement was concluded, providing for a 7.5 percent increase in the price of beef; permission to Argentina to convert British money spent in Argentina into dollars or any other currency; the release of gold which the Bank of England was holding to the credit of the Banco Central de la Republica Argentina and the creation of a new joint Anglo-Argentine company to take over British-owned railroads and pay British stockholders with new stock issued at like value by Argentina. Of Argentina's credits in Great Britain, $20,000,000 was scheduled to be freed annually for four years. It was anticipated that the remainder of the blocked sterling would be used to repatriate sterling debts on British investments in Argentina. The agreement also stipulated that Argentina could transfer $40,000,000 in sterling to Brazil. By the trade pact Great Britain retained her position as chief purchaser of Argentine beef, drawing on 87 percent of Argentina's surplus during the first year and 78 percent during the second year.

In mid-December President Perón presented a gift of 15,000 tons of meat, valued at $3,482,000 to the British people. Offered as a Christmas token of friendship, the gift enabled the British Food Ministry to give a rebate to all Britons holding ration books.

Other Relations with Europe. Relations with the Soviet Union were generally limited to diplomatic ties. Trading between the two countries, aside from one shipment of linseed oil, was limited to the preliminary stages of negotiations.

Less than three weeks after the Labor party, headed by President Perón, issued a rebuke to Spain on March 9 for the execution of persons described as pro-liberal and a bomb was thrown against the Spanish Consulate on the same day, the Argentine Government granted a $7,500,000 credit to Spain. The Argentine Foreign Office explained that the loan was consistent with the policy of aiding those countries whose economy was disrupted by the war. On October 30 Argentina signed a trade agreement with Spain, providing for the sale of wheat, corn, and edible oils in exchange for Spanish steel and other metals. The pact granted Spain a revolving credit of approximately $87,500,000 as a purchasing fund.

Latin American Relations. Argentina established with Chile on December 14 a commercial treaty that firmly locked the economies of both countries in far-reaching agreements. The treaty eliminated tariff barriers on vital products and provided a loan of about $148,000,000 for Chile. Argentina was given an outlet to the Pacific Ocean through Valparaiso, which was named a free port, and large allotments of much needed coal and copper nitrates. The economy of Chile was bolstered through credits and assurance of a food supply from Argentina.

On October 25 was negotiated between Brazil and Argentina a five-year-barter pact which provided Brazil with Argentine wheat in exchange for crude and manufactured rubber, cotton textiles and yarn, lumber, and pig iron. Effective January 1, 1947, the agreement committed Argentina to supply Brazil with annual shipments of 1,000,000 tons of wheat, providing the exportable surplus is not less than 2,600,000 tons. If the surplus is less, Brazil will receive 45 percent of the surplus. Brazil promised to send Argentina its entire exportable surplus of tires, 3,000 tons of crude rubber in 1947 and 5,000 tons in each of the succeeding four years, 60,000,000 yards of cotton textiles in 1947 with increased shipments during the succeeding years, a billion square feet of lumber over the five year span, and an annual minimum of 15,000 tons of pig iron.

Economic Development. As one of the few nations that emerged unharmed from the war, Argentina entered the postwar world as one of the two nations, with the United States, capable of acting as a "giver" of meat and grain to a hungry world. In March, however, Argentina's financial program was criticized in the annual report of the Argentine Chamber of Commerce. Accusing the Government of using a 1945 budget that exceeded total revenue—revenue 1,355,000,000 pesos, expenditure 2,849,000,000 pesos—the report pointed out that improvement in public works, public health, and education were in no way commensurate with the expansion of military establishments.

President Perón's nationalization efforts, that began with banks and universities, was extended on April 17 to food exports. A wheat subsidy of five pesos per 220 pounds was provided for the growers while a fund of $31,000,000 was established to assure millers of cheap wheat for the domestic market. The move was intended to bring wheat out of hoarding for shipment abroad and to encourage wheat planting which had declined during the war. On August 30 the Government issued a decree establishing itself as the sole agent for Argentina's $350,000,000 annual meat exporting industry. Later, in September, the Government established control over quebracho extract, casein, cheese, butter, potatoes, sugar, vegetables, fats, and onions.

The nationalization of Argentina's economy was given further fact on November 30 when the Central Bank imposed controls on imports of all machinery by requiring licensing. This order reinforced the five-year plan which required only those imports that fitted into its program. According to the Central Bank's announcement, complete authority over machinery imports was placed in

the Argentine Institute for the Promotion of Interchange, which also controlled exports. The principal objective of the order "was to favor the use of monetary reserves accumulated abroad by this nation during the war preferentially in the purchase of mechanical equipment necessary to replace outworn machinery and to increase industrial production." The order also stated that "imports on items produced in Argentina will not be permitted."

The 14,000,000 population of Argentina proved a strong curb on President Perón's plans for a highly industrialized nation with equitable developments in other aspects of the economy. To alleviate the manpower shortage, Dr. Santiago M. Peralta, Director of Migration, outlined on August 14 a fifty-year plan to increase the country's population to 100,000,000. President Perón's five-year plan called for 50,000 immigrants a year without racial or religious discrimination. However, immigrants had to be "assimilated as far as possible into the spiritual and social unity of our people and must be morally and physically sound." The policy aimed to encourage the immigration of farmers, technicians, and skilled laborers.

The People. Ninety-seven percent of the population is estimated to be of European descent, chiefly Spanish and Italian; the remainder of Indian and mixed extraction. Argentina's population is predominantly urban with an estimated 75 percent concentrated in towns and cities of over 1,000 inhabitants. Highest regional density of population (in the eastern pampa) is about 26 persons per square mile; densities in all other regions are less than 8 per square mile. The three largest cities are: Buenos Aires, 2,600,000; Rosario, 517,000; and Córdoba, 274,000.

Spanish is the official language. The Roman Catholic Church is supported by the State, but other faiths enjoy complete freedom.

Argentina is rapidly developing its educational opportunities and facilities. It is estimated that at least 85 percent of persons over 18 years of age are literate, while recent official figures give 11 percent illiteracy for the country as a whole, with only 2 percent in the Federal Capital. Primary education is now free and obligatory. There are over 14,000 elementary schools with a total of more than 2,000,000 pupils; 250 high schools with a total enrollment of about 125,000; and 6 universities having a total student body of some 39,595. Argentina has more than 100 normal schools and a wide variety of institutions giving specialized instruction in agriculture, art, commerce, industry, etc.

National Economy. Argentina's economy is based equally on industry, agriculture, and cattle raising. Wheat and corn are the most important crops, but linseed, other grains and cereals, sugarcane, cotton, potatoes, and grapes are also significant. Before World War II some 60 percent of the wheat, 80 percent of the corn, and 90 percent of the linseed were exported. Argentina was the world's leading exporter of corn and linseed, and one of the chief exporters of wheat. The war caused a sharp decline in exports of these crops. Production figures for the leading crops in 1945 were: 4,085,300 metric tons of wheat; 2,965,500 tons of corn; 6,559,600 tons of sugarcane; 72,600 metric tons of cotton; and 157,300 metric tons of grapes.

Cattle raising is second in importance in the country's economy. Argentina normally produces three-fourths of the world's exports of chilled beef, and is the second largest exporter of mutton, and third of wool. Frozen and canned meat, hides, casein, and butter constitute the chief products of the livestock industry. Total livestock in the country as of June 30, 1945 included: 34,010,300 cattle; 56,181,800 sheep; 8,009,700 hogs. In 1943, packing and slaughterhouses handled 6,698,000 beef cattle, 11,900,000 sheep, and 3,500,000 hogs. Production of dairy products in 1945 (11 months) included: 39,177 metric tons of butter and 72,403 metric tons of cheese. In 1945, 26,339 tons of casein were made.

Argentina is the leading manufacturing country of Latin America. The essential elements for extensive development of heavy industry, however, are lacking. Coal and iron deposits are limited and of low quality; waterpower sites are chiefly located in undeveloped areas. Processing of agricultural products is the leading industry, food, beverage, tobacco, and textile industries are important, while leather and chemical manufactures are increasing. Other manufactures include: cement, paper, electrical equipment, tires, glass, pharmaceuticals, and fabricated iron and steel products.

Foreign Trade. The total value of Argentine exports in 1945 was 2,485,220,000 pesos. Of this the United Kingdom received 25 percent; United States 22.4 percent; and Brazil 9.5 percent. Principal exports are agricultural and pastoral products. Wheat, corn and linseed lead the agricultural exports; meats, hides, wool, dairy products, by-products and residues constitute the chief animal products exported. Meat exports accounted for about one-fifth the value of total exports in 1945, and made up one-third of the total value of exports. During 1945 Argentina exported 118,945 metric tons of hides and skins. Leading groups of exports in 1945 listed according to value: livestock products, 1,286,053 pesos; agricultural products, 806,541,000 pesos; forest products, 69,544,000 pesos; minerals, 18,716,000 pesos.

Argentine imports in 1945 reached a total value of 1,154,002,000 pesos. Brazil supplied 28.9 percent; United States 13.7 percent; United Kingdom 10.1 percent. Textiles, foodstuffs, paper and wood and their manufactures, and chemical products comprised Argentina's chief imports. Other important groups of imports were: paper, cardboard, etc,; chemicals, drugs, oils, paints; fuels and lubricants; iron and manufactures.

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ARMY AIR FORCES, U.S. As the Army Air Forces undertook the transition from World War II operations to a peacetime structure in 1946, the United States' military air arm pushed plans for a program designed to give the nation at least the minimum requirements for national security. Accordingly, General Carl A. Spaatz, who had succeeded General of the Army Henry H. (Hap) Arnold on February 9, 1946, as Commanding General of the AAF, asked for sufficient funds to support a permanent peacetime air force of 400,000 men. Compared with the nation's capsule Aeronautical Division, father of the AAF, founded in 1907 with one officer and two enlisted men, the manpower that General Spaatz requested as a minimum need was of gigantic proportions. But at the end of the second World War new conceptions of air power evolved that would have to be met with sufficient manpower and ever changing scientific and mechanical resources.

Despite the unescapable fact that military aviation was face to face with new developments of great impact, such as supersonic speeds, jet propulsion, pilotless aircraft, guided missiles, rockets, the atomic bomb, and occupation, the AAF in 1946 had comparatively little money to meet these chal-

lenges. Whereas, for the fiscal year ending June, 1946, expenditures for the postwar AAF aggregated $2,518,914,260, the Air Forces could look forward to but a half of that—$1,200,000,000—for the year ending June 1947.

Coupled with the necessity of pursuing a program at home designed to maintain air supremacy for the United States was the AAF's assignment to the task of occupation in Europe and in Japan. A similar task had been undertaken by the United States Air Force in Europe (USAFE) with headquarters in Wiesbaden, Germany. By June 1946, USAFE had a working strength of 50,508 officers and men towards its goal of 70,000. While USAFE planned to have an aircraft strength of 2,700 airplanes, there were 1,946 AAF planes in Europe in August 1946. By that time USAFE was operating from 26 airfields. These included Tempelhof Airdrome in Berlin, Dornier Field near Munich, in addition to bases scattered strategically throughout Germany.

Equally important was the job of sustaining air vigilance over occupied Japan and areas in the Pacific. Right after V-E Day the task given the reorganized Fifth Air Force, was to police the air over the four Japanese home islands of Honshu, Hokkaido, Kyushu, and Shikoku, as well as the American-occupied area of Korea. By June 1946 there were 63,786 AAF officers and men in the Pacific Ocean areas, although a sizeable percentage of that number was awaiting discharge.

Postwar AAF Reorganizes. Mindful of destructive consequences should United States air supremacy be voided, the AAF's wartime commanding general, General Arnold, sounded a postwar warning to the nation:

"The future security of the United States lies in the air—there is no doubt of that. At the close of this war we had the greatest air power in the world, the arsenal of the world, and were the dominating country to whom all the small nations looked for leadership. If we lose our position, if we allow ourselves to be complacent, our country will be vulnerable to attack and devastation as never before in its history."

It was significant that General Arnold, in attacking "complacency" and unpreparedness, was talking to members of the Institute of the Aeronautical Sciences, since that group was highly cognizant of the changing conceptions of air power ushered in by the atomic and supersonic age. Since manpower was still a potent factor in the strategy of defense, despite the heavy inroads demobilization had made in AAF strength, streamlining of the Air Forces was undertaken in March 1946 to help meet the new challenge. The reorganization of the AAF into three major combat commands and five supporting commands resulted in the Air Defense Command, the Strategic Air Command and the Tactical Air Command as the three major commands, and the Air Transport Command, the Air Materiel Command, the Air Forces Proving Ground Command, the Training Command, and the Air University, as the five supporting commands.

The Air Defense Command was given the responsibility of domestic defense and coordinating the Air National Guard and Air Reserve organizations designed to provide trained personnel to augment the 400,000 regular AAF men requested by General Spaatz. Proposed were an Air Reserve to include 50,000 officers and 12,000 enlisted men, and an Air National Guard composed of 7,911 officers and 49,471 enlisted men. With return of the National Guard to state control following the general demobilization, the various States were quick to approve the expanded Air National Guard proposed by the Army Air Forces. By the end of the year, the majority of States were in the process of organizing the 84 combat squadrons assigned to the Air National Guard. Air Reservists, who will man 306 additional combat and 278 service units, got back into action in July. By the year's close they were flying more than 10,000 training hours per week at 63 bases throughout the nation. Offensive action in event of another war and special bombing projects of an experimental nature were placed within the province of the Strategic Air Command, activated on March 21, 1946.

The Strategic Air Command was given direction of three air forces, two of which had been activated by the end of 1946. Since it also dealt with special bombing projects, the Strategic Air Command provided the personnel for the task group participating in "Operation Crossroads," the atomic bomb tests at Bikini on July 1, 1946.

The third major combat command established under the reorganization, the Tactical Air Command was to be the cooperating link between the AAF and ground and naval forces. The Tactical Air Command also was to train and equip mobile flying combat forces for independent operations anywhere in the world.

Of the supporting commands in the AAF reorganization, the Air Materiel Command was to set up the yardstick as it did during World War II, of aeronautical advances designed to give the United States air supremacy. In the vast laboratories at Wright Field, Ohio, the Air Materiel Command was to achieve during 1946 a series of notable accomplishments that would make aeronautical history. Among these were long range research into the aerodynamics of supersonic speeds, experiments in "push button" flight of pilotless aircraft, development of all-weather flying systems, studies of rockets, guided missiles and radio control mechanisms. The Air Materiel Command also assigned vast research on jet propulsion to the AAF base at Muroc Field, California. Research in liquid propellant rocket engines was conducted at the California Institute of Technology, while research in radar was divided between Aberdeen, Maryland, and Boca Ratan and Orlando, Florida. The work of redesigning and re-engineering ground-to-plane radar and radio equipment was assigned to the Watson Laboratories in Red Bank, New Jersey.

The Air Transport Command, continued the important, though smaller role in 1946, maintained during World War II, when it performed the miracle of transporting 3,639,648 passengers, including sick and wounded, in addition to more than one million and a half tons of mail and cargo over some of the most hazardous air routes in the world. The Air Transport Command's responsibilities and operations in 1946 included military command of all American troops (ground, service, and air), communications and bases from Iceland to the South Atlantic, comprising more than 26,000,000 square miles of territory; as well as a number of new services, such as weather, communications, flying safety, flight control and air rescue, which were also placed at the disposal of all AAF divisions.

The wartime record of the Proving Ground Command made it one of the essential units in the postwar Air Forces. In October 1946, the AAF undertook a $35,000,000 program at Muroc Dry Lake, California, to transform the 70-square-mile area into the world's largest airport for jet and rocket-propelled aircraft. Some of the Proving Ground Command's personnel were part of the group re-

sponsible for perfecting the "drone" unmanned aircraft used in "Operation Crossroads" at Bikini.

The Training Command continued its major role under the 1946 reorganization. Training of AAF personnel was controlled by two branches—the Flying Training Command at Randolph Field, Texas, which trained pilots, navigators, gunners and bombardiers, and the Technical Training Command at Scott Field, Illinois, which supervised AAF ground personnel. The Air University, an innovation, described as a post-graduate college of the Training Command, operating on the theory that improved doctrines in air power must be constantly revised to meet technological progress, furnished AAF officers with factual knowledge, skills and techniques essential to them as commanders and staff officers, and served to stimulate thought on military aircraft of the future. Five schools were operated by the Air University in 1946.

New Concepts of Air Power. A world shrinking in size under the impact of aviation advancements—long-range, high speed flight, jet-propelled aircraft, rockets, guided missiles and other factors—prompted the AAF to intensify its efforts in 1946 to maintain world leadership in aeronautical research and development. The famous "Operation Musk Ox" early in 1946, and the dramatic flight of the Superfortress *Pacusan Dreamboat* in October were AAF accomplishments that demonstrated the necessity of accepting the Arctic regions as an important factor in the maintenance of air power.

A hint of this new concept in its relation to American defense was given by General Spaatz in an address before the American Legion convention on September 30, 1946, when he said:

"At the end of World War II, air power is developing so rapidly that devastating attacks launched in one hemisphere against the other are a certainty in any future war.

"Through the Arctic, every industrialized country is within reach of our strategic air power. America is similarly exposed. We are, in fact, wide open at the top. War becomes global, making all flat projection maps obsolete, along with the thinking based upon them."

Earlier, in a statement on August 1, 1946, marking the 39th anniversary of the founding of the AAF, General Spaatz warned of the necessity for keeping up-to-the-minute on new air weapons, when he declared:

"We can never be completely certain about the future, but we know that improved atomic bombs, pilotless aircraft traveling at supersonic speeds, and guided missiles are or soon will become realities. They are weapons with which we can deal successfully and quickly with any enemy. In World War II, America's air potential came of age. It grew up in size, efficiency, striking power and in technological developments. That process of growth took time, but we must now realize that never again will we have time for such expansion."

It was plain that atomic energy would have tremendous influence on the future of air power. In 1946, air power was seen as the best method of striking an enemy with the weapon that had leveled Hiroshima and Nagasaki in the closing days of World War II.

Jet and Rocket Propulsion. American airmen almost smashed through the sonic barrier in 1946. The AAF actually announced an aircraft capable of exceeding the speed of sound and climbing 80,000 feet into the stratosphere. This development became more than speculation through extensive progress in new types of propulsion—jet and rocket. By the end of the year, the AAF already had successfully tested its first rocket-propelled plane, the Bell XS-1, built to penetrate and go far beyond the sonic barrier. In the field of jet propulsion, also capable of pushing aircraft to speeds never before attained, the Army Air Forces led the world. Although the first jet engine was a British development (Air Commodore Frank Whittle of the RAF was awarded America's Daniel Guggenheim medal in 1946 for pioneering the development of turbo-jet propulsion of aircraft), the AAF forged ahead with improvements that were to give the United States top place in this revolutionary concept of speed. The AAF also had access to valuable jet and rocket propulsion equipment and studies made by the Germans during World War II.

Although the AAF made a definite shift in its overall research program from conventional engines to jet and rocket propulsion, it did not abandon work on piston-type engines. In fact, combinations of rocket propulsion and conventional type engines were developed in 1946, in addition to aircraft using either jet or rocket propulsion exclusively. The famous P-51 Mustang fighter was outfitted with a ram jet engine on each wing tip. Another fast AAF plane developed as a combination-powered aircraft was the new XP-81, which was a compromise between propellered planes and jets to include features of each.

The only reciprocating engine developed by the AAF during 1946 that gained wide attention for its unusual power features was the 5,000 horsepower XR-7755. Built by the Lycoming Division of the Aviation Corporation, Williamsport, Pennsylvania, this new aircraft engine, equal in power to a railway locomotive, was described by air experts as possibly providing the key to around the world non-stop flights. The AAF believed that the engine could increase the range of existing planes to more than 11,500 miles and would boost their present payload from 10,000 to 50,000 pounds. The liquid-cooled, 36-cylinder engine had a revolutionary feature whereby the pilot could control its power much as a motorist shifting gears in his automobile.

Air Forces engineers also studied the many applicable phases of jet propulsion, including combustion phenomena, ceramics, metallurgy, advanced engine geometry, and the study and development of new propellers.

Long distance transportation of jet-propelled fighter planes had its first test on May 19, 1946, when 20 P-80 Shooting Stars of the 412th Fighter Group made, in several stages, a mass flight from March Field, California, to Washington, D.C.

The Army's peacetime Air Forces will be built chiefly around jet-propelled fighters and bombers, ultra-long range aircraft of both types, and other revolutionary aviation designs, which, under the impetus of war, were pushed 20 years ahead of their time. More powerful and longer ranged bombers, such as the B-36 super bomber, will take the place of the famous war-tried B-29, and a fighter nucleus of jet planes will replace wartime fighter planes.

It was realized that one of the greatest forward steps in the AAF's research program was the advent of the turbo-jet engine, which took advantage of a new technique for disturbing the air and obtaining tremendous forward thrust. The AAF was well on the road to conquering the sonic barrier which heretofore had been a stone wall to the tremendous speed capabilities of its new aircraft.

"Operation Musk Ox" and *Pacusan Dreamboat*. The advantages of air transport in the Arctic regions were demonstrated conclusively in "Operation Musk Ox" which was undertaken early in 1946

by the U.S. Army and the Canadian Army. A study was made, under far northern conditions, of Army-Air cooperation, methods of air supply, the mobility of over-snow vehicles, the effect of the Magnetic Pole on navigational instruments and the problems affecting the Arctic operation of an air force unit. During the 81 days of travel through many areas never before explored, the entire "Musk Ox" force was entirely dependent on aircraft for supplies.

Winterization of all "Musk Ox" planes included many new techniques never before tested. Since temperatures ranged from 40 to 50 degrees below zero, external plumbing had to be specially wrapped. Plastic brackets, which crystallize at extremely low temperatures, were replaced with metal. Electrically controlled propellers replaced the usual hydraulic props which are difficult to feather in low temperatures. Gliders came into their own, since they proved their effective use for supply in areas that were snowbound and otherwise confined.

Meteorological data gathered on the expedition was seen to be of immeasurable assistance in aiding AAF weather engineers to make forecasts far in advance. The AAF decided on that basis to install more Arctic weather stations, both for civilian and military purposes. The functioning of electronic equipment in the areas affected by the Magnetic Pole was considered highly important because of the data required for future over-the-pole flights and operations in Arctic regions. The C-47 cargo planes were equipped with Loran (Long Range Navigation), one of the AAF's newest electronic devices for navigation, developed and used during World War II for long-range flights where regular radio communication was impractical. Radar beacons were used by the ground party to guide the supply planes the last few miles to drop areas. Other navigational aids carried by the planes for testing were electric gyros, radio altimeter, and the AAF instrument landing approach system.

Strengthening the polar-concept in AAF strategy was the dramatic flight of the *Pacusan Dreamboat*, a highly modified B-29 Superfortress, on October 5–6, 1946, from Hawaii to Cairo, Egypt, by way of the Arctic Circle. The plane, which made the 9,442-mile journey in 39 hours and 36 minutes, proved the practicability of a long range flight across polar routes by properly equipped aircraft. The flight provided the AAF with valuable information on navigational, engineering, communications, weather, fuel consumption and physical endurance problems The *Pacusan Dreamboat* confirmed the evidence that the North Magnetic Pole is at least 200 miles farther north than the position shown on maps. Commanded by Colonel Clarence S. Irvine, the B-29 took off from Hawaii with the heaviest load ever carried aloft by aircraft. On board were 13,000 gallons of gasoline, more than half the total take-off weight of 147,000 pounds, which was 27,000 pounds over the maximum gross weight designed for a standard-built B-29.

The flight of the *Pacusan Dreamboat*, completed without mishap, brought the Distinguished Flying Cross to Colonel Irvine, to the pilot—Colonel Beverly H. Warren, and to the navigator—Major Norman P. Hayes. The other seven crew members were awarded the Air Medal. The flight showed that Chicago can be brought within nonstop B-29 range of Tokyo, Shanghai, Bombay, Istanbul or Cairo. The implication of the polar-concept of air strategy meant that in order for a plane to fly east or west, it will fly a northern route and end up flying south.

AAF Research and Development. "Military aviation is taking a good look into the future. What it will see and bring into practical realization will furnish the key to the peace and the security of the United States."

With these words, Major General Curtis E. LeMay, deputy chief of Air Staff for Research and Development, indicated in 1946 that the AAF intended to throw all the resources it could muster into efforts to keep pace with aviation progress. By the end of 1946 the AAF's research and development laboratories at Wright Field could point to an impressive list of achievements ranging from jet engines, rocket research, plastic planes and "push-button" flight to new aerial cameras and rescue devices. The spectacular "Operation Crossroads" at Bikini pushed AAF research forward.

The AAF's role at Bikini was dramatic and of major importance when it dropped the world's fourth atomic bomb on target ships in the history-making mission. The AAF helped accomplish the primary purposes of the test as planned by joint Army-Navy Task Force One.

Three thousand AAF men went through five months of training, pointed towards the dropping of the bomb, named "Gilda," by the AAF B-29 plane, *Dave's Dream*, piloted by Major Woodrow P. Swancutt. A number of AAF aircraft orbited at specific points to wait for the signals which would release blast gauge instruments and trip off automatic high speed cameras. Four AAF planes, B-17 Flying Fortresses, were pilotless and radio controlled, making it the first time in history that a four-engined bomber had ever been put in the air with no one aboard. These crewless planes ploughed their way through the deadly radioactive cloud within minutes after the bomb exploded. When the test was over, Secretary of the Navy James V. Forrestal declared, "The Army Air Forces was magnificent," while Assistant Secretary of War for Air W. Stuart Symington described the AAF's work as "a perfect mission."

Since the AAF placed great emphasis on the development of turbo-jet engines for high speed aircraft, the period following V-J day witnessed considerable progress in this field. A noted example was the General Electric TG-180, an axial, flow-type jet engine that was used to power the famous P-84 Thunderjet fighter plane, which made an unofficial world's speed record in September. Nevertheless, the propeller which the turbo-jet engine was designed to eliminate came in for its share of research as a potential auxiliary to supersonic flight. In fact, AAF engineers envisioned the supersonic propeller as being five or six feet in diameter, having six or eight blades with a spinner half the diameter of the blade to cut down on drag, and running at 7,000 to 8,000 revolutions per minute, triple that of anything in existence. The gas turbine engine developed by AAF would offer the necessary power potential to drive this propeller, in the opinion of engineers. In such new aircraft as the XP-81 fighter plane, the AAF used a General Electric gas turbine which not only rotated the propeller but supplied a certain amount of jet thrust. Such engines have a tremendous power potential and are considered to be the probable main power plants for huge airliners, cargo planes and bombers of the future.

The Air Materiel Command perfected a pilot ejector seat which would allow the pilot of a high speed plane to leave, in case the aircraft is disabled, without the danger of hitting the tail of the plane. The escape system is automatic from the time the pilot is ejected in his seat right up to the point when his parachute opens. The first successful jump

with the pilot ejector seat was made by First Sergeant Lawrence Lambert over Patterson Field, Dayton, Ohio, from a P-61 Black-Widow traveling at 300 miles per hour at an altitude of 6,000 feet.

The AAF experimented with various types of rockets and jet-propelled bombs made for offensive bombing, anti-aircraft defense and air-to-air fighting. In August 1946, the War Department announced tests of a rocket-powered 10-foot-long projectile named "Gapa" (Ground-to-Air Pilotless Aircraft), which was "expected to be capable of seeking out and destroying possible enemy weapons before they can reach their target." A hitherto secret, guided missile, "Gapa" was propelled by standard Aerojet rocket units and had a booster power unit in the tail, accelerating the projectile to high speed within a few seconds. In January 1946, the AAF had under way a number of robot bomb projects. "Felix" was the name given a bomb that could be attracted to its target by heat within a limited radius. "Roc" was another bomb of 1,000-pound weight equipped with television to scan a target and relay vital information back to the aircraft, thereby allowing for aiming correction by the bombardier.

A guided missile used against the Japanese in India and in Burma was "Azon," which was further studied in 1946. This was an ordinary 1,000-pound bomb with a special tail assembly which enabled the bombardier in the plane from which the bomb was dropped to steer to the right or to the left by radio control. "Razon," a later development of the same bomb, allowed the bombardier to control the bomb both in direction and range. In addition to the development of new missiles, AAF engineers of the Proving Ground Command conducted tests of captured German projectiles, notably the jet-propelled V-1 and the rocket-propelled V-2, for the purpose of making improvements.

During 1946, AAF engineers progressed towards development of an all-plastic plane. On September 3, successful tests were made of a glass fiber wing, constructed of a new basic material comprising 55 percent glass fiber and 45 percent resin. It withstood 105 percent of the required design load without buckling or wrinkling in the glass-like surface. Operational advantages would include greater aerodynamic efficiency, largely through the absence of rivets and joints found in the conventional metal wing. Furthermore, the greater rigidity of the wing structure would result in smoother flow of air over the wing surface. Some time earlier, the AAF had started development of a plastic fuselage.

The successful test of the much-publicized "push-button" flight, fully automatic from take-off to landing, was announced on February 3, 1946, by Air Materiel Command. A standard C-54 transport plane, equipped for automatic flight, flew successfully from Wilmington, Delaware to Indianapolis, Indiana, and back with 14 passengers, without manual control by pilot or crew members. Outside weather conditions had no effect on functioning of the "push-button" equipment. The plane was operated by a mechanical "brain," known as the automatic flight controller.

In the field of meteorology, an all-important phase of the Air Forces' research program, the AAF made major progress in 1946. The AAF Weather Service, part of the Air Transport Command, formed four Very Long Range Weather Reconnaissance Squadrons of B-29s to fly daily weather missions into some of the most turbulent areas over Atlantic and Pacific waters. The information uncovered proved of great value to military and civilian airmen, especially in connection with attempts to find the origin and movements of storm centers. The AAF also undertook a project dealing with "operational flyability through thunderstorms" under direction of the Proving Ground Command. Its aim was to increase flying safety through thunderstorms, and for the tests the AAF used a P-61 equipped with special instruments and measuring devices perfected with the aid of the National Advisory Committee for Aeronautics.

In July 1946, an AAF B-29 Superfortress "flying laboratory" made a high altitude flight to South America to study cosmic ray effects on radio transmission, electronics, materiel, and human beings. The plane, carrying AAF technicians and National Geographic Society scientists, flew at 35,000 feet. The scientists measured the intensity and quality of the cosmic rays at various altitudes of the earth's atmosphere, while AAF technicians studied their effect on equipment that was to be used by the Air Forces in its guided missiles program.

During the year at least two important developments connected with aerial photography were announced. In October the AAF added the FP-80, a camera-equipped version of the famous Lockheed P-80 Shooting Star to the ranks of its high speed photographic planes. The AAF described the FP-80 as the fastest photo reconnaissance plane in the world. A month later, the AAF announced that the K-30, the world's largest aerial camera, built to take large scale photographs from stratospheric reconnaissance planes, had been tested successfully. The camera with f/10 lens and 100-inch focal length, would take 9 × 18 inch pictures with two and one-half times more photographic detail from altitudes as high as 10 miles than could be obtained from the largest standard camera heretofore used.

In August, the pneumatic balance resuscitator, popularly known as the "baby lung," which stemmed from the AAF's wartime research was made available to public health authorities by the AAF. Designed and built in the Aero-Medical Laboratory at Wright Field, the "baby lung" was intended for use in emergency treatment of infantile paralysis cases until an iron lung could be made available for the victim. The device was described as a plastic valve, about two square inches in size, which when coupled with an anesthetic type mask, an oxygen bottle and an oxygen regulator, would serve as a resuscitator. The valve was designed by the AAF for use during the war to keep wounded crew members alive until the plane could return to its base.

As 1946 ended, the AAF revealed a fact that was considered certain to have far-reaching effect on research and development in all phases of military aviation—the employment of German aviation scientists of World War II. The AAF already had been making use of captured German documents and equipment in making improvements on aircraft and air weapons. Among the former enemy scientists were those who had done considerable work on rockets, such as the deadly V-2, and gliders. To break down the language barrier problem in deciphering captured German documents dealing with aviation, the AAF compiled an aeronautical 75,000-word German-English dictionary.

Heavy Bombers. *Consolidated-Vultee B-36.* Dwarfing in size, and exceeding in performance, any bomber operationally flown during the war, the B-36 was designed for a normal range of 10,000 miles with 10,000 pounds of bombs. The giant plane, first flown in August 1946, can carry 36 tons of bombs at reduced range, more than three times the capacity of the B-29 for the same distance. It is powered

by six Pratt & Whitney 28-cylinder, pusher-type engines, which turn the largest propellers ever installed on an airplane, and develop a total of 18,000 horsepower. A feature of the 19-foot, Curtiss electric, hollow steel propellers is a built-in anti-icing device, the first applied to production propellers. The use of two superchargers on each engine, together with pressurized cabins, enable the B-36 to attain a ceiling of over 30,000 feet. Its speed exceeds 300 miles an hour. In size, the new AAF bomber measures 163 feet in length, 47 feet in height, and has a wing span of 230 feet. The normal load of the wing tanks is 21,116 gallons of gasoline and 1,200 gallons of oil. Total area of the fuselage skin is 5,635 square feet. The wing, with an area of 4,772 square feet, incorporates a laminar-flow airfoil, and is mounted slightly forward of the midpoint of the fuselage. Comprising 3,924 cubic feet, the forward and aft cabin space constitute the largest volume of pressurized space on any bomber yet built. Extending the entire length of the bomb-bay section, on the left side of the fuselage below the wing, is a pressurized magnesium communications tunnel 85 feet long and two feet in diameter. This tunnel connects the forward and aft cabins and is provided with a four-wheel scooter by which crew members travel from cabin to cabin. The B-36 carries a regular crew of 11 men, plus a commander and a relief crew of four. Regular crewmen consist of a pilot, co-pilot, navigator-bombardier, flight engineer, radio operator and gunners.

XB-35 (Flying Wing). Revolutionary in its departure from conventional bomber design, the experimental XB-35 has no recognizable fuselage. This new AAF bomber is little more than a giant wing. Its general contour resembles a wide "V," following the swept-back principle for less drag, and its entire operating mechanism is contained within the wing itself. In length, the ship measures a mere 48 feet, but its 172-foot wing span exceeds that of the B-29 Superfortress by more than 30 feet. Quarters for the crew are in the forward third of the wing. At this point the wing is thickest—almost seven feet high. From a rounded leading edge, the wing increases rapidly in taper until the thickest portion is reached. Level for a short distance, the taper gradually recedes to the trailing edge, much in the same manner as the design of large wings on conventional bombers. The pilot's position is in the center and top of the wing, very near the leading edge. He is protected by a protruding blister similar to the type installed in fighter aircraft. Four Pratt & Whitney, X Wasp R-4360 pusher-type engines provide forward thrust. The contra-rotating propellers include a reversible-pitch feature for braking purposes. Dual main wheels and a single nose wheel comprise the retractable tricycle landing-gear. The unique design of the Flying Wing made impossible the use of standard vertical stabilizers, or rudders. Instead, split rudders, similar in appearance to dive-bombing flaps, were installed on the trailing edges near the wing tips. In order to turn, the pilot opens the jaw-like flaps to an angle which causes sufficient drag to pull the plane to the desired position. Elevators are combined with ailerons and are called elevons. Both functions are performed by these elevons which are located on the wings' trailing edges, just in-board of the split rudders. The AAF XB-35 can accommodate a crew of 15, which includes six men to serve as a relief crew.

Medium Bombers. XB-43. This experimental model is the first jet-propelled AAF bomber. Its airframe design is essentially that of the earlier XB-42, modified only slightly to incorporate the jet installations. In size it compares with the more commonly known A-26 Invader, which was used so successfully during the war. Somewhat larger and heavier, the XB-43 has a wing span of 71 feet, 2 inches, and measures 51½ feet from nose to tail. The two TG-180 jet engines, installed in the fuselage, supply the plane with more than 8,000 pounds of thrust power. Built by the Douglas Aircraft Company, the AAF bomber has a very rapid rate of climb and a speed of approximately 500 miles an hour. A pressurized cabin supplies pilot comfort at its service ceiling of 38,000 feet. Its normal range is approximately 1,400 miles.

Fighter Planes. Republic XP-84 (Thunderjet). This jet plane established an unofficial world's speed record of 617.8 miles per hour in September. The XP-84 is powered with a General Electric TG-180, an axial, flow-type jet engine, and has a range of 1,000 miles and a service ceiling in excess of 40,000 feet. By the unique location of its air scoop, the fuselage becomes one giant tube through which air passes into the axial flow engine, located behind and below the cockpit. The jet nozzle sweeping back and out of the tail of the plane makes for a direct straight flow of the expelled air. The Thunderjet is equipped not only with a fully pressurized cockpit for extreme altitudes, but with automatic air conditioning for the pilot at all altitudes of operation. Other features include a pilot ejection seat and a full-vision bubble canopy. External dimensions are: wing span, 36 feet, 5 inches; overall length, 37 feet, 3 inches. The XP-84 achieves new standards of aerodynamic cleanness, as its exterior surfaces are completely free from protruding equipment of any kind.

Other jet-propelled aircraft developed and announced by the AAF in 1946 included the XP-81, XP-82, XP-83 and the XP-79.

Rocket Aircraft. XS-1. Blasting into headlines in December 1946, the first American rocket-propelled airplane initiated a new era in powered flight. Although held to a moderate speed of 550 miles an hour in its December test, future models of the XS-1 are believed to be capable of attaining a rate of 1,700 miles an hour. Designed in joint enterprise by the Army Air Forces, Bell Aircraft Corp., the National Advisory Committee for Aeronautics and Reaction Motors, Inc., the rocket aircraft is expected to attain an altitude of 80,000 feet. Not a combat model, it is fitted out as a flying laboratory to record the effects of transonic and super-sonic speeds on aircraft. Four rocket units, burning alcohol and liquid oxygen, supply a total thrust of 6,000 pounds for 4 units. The plane's length is 31 feet, and it is 10 feet, 10 inches in height. Although highly streamlined, the XS-1 employs rather conventional lines and has avoided the use of the swept-back wing. The plane's wing is very thin, with a maximum thickness of only ten percent of the chord. Other wing designs will be tried, incorporating the knowledge gained by experience with the test model.

Photo Reconnaissance. FP-80. Retaining all the flight characteristics of its predecessor, the Lockheed P-80 Shooting Star, the camera-equipped FP-80 was the fastest photographic plane in the air during 1946. Externally, it differs from the P-80 only in its shorter and slightly blunter nose. A variety of camera arrangements makes nearly every type of aerial photography possible. Three aerial cameras, one vertical, and two aimed at 60-degree angles to either side, allow for horizon-to-horizon shots several miles in extent at normal photographic altitudes. Other combinations of cameras may be utilized to provide shots ranging from wide-angle.

terrain photographs to highly-detailed, pin-point pictures. Officially credited with a top speed in excess of 550 miles an hour, the new AAF plane has a range comparable to that of the P-80, and a ceiling well over 30,000 feet.

Transport Planes. *Douglas C-74 (Globemaster).* This AAF plane is the world's largest cargo aircraft. When flown it carried a gross payload of 40,000 pounds, the greatest known payload yet to be carried by any aircraft. The C-74 has a gross weight of 145,000 pounds and is powered by four Pratt and Whitney Wasp Major R-4360 radial engines. Each of these engines is capable of producing 3,000 horsepower. All nacelles are interchangeable and a complete power plant can be changed in less than one hour. The plane is equipped with Curtiss Electric propellers which will full feather as well as go into reversible pitch. The propellers also have automatic synchronization. The C-74 has a tricycle landing gear with dual wheels which are, including the tires, approximately 65 inches high. The propeller blades are 16 feet, 8 inches in diameter. With a flying range of over 7,000 miles and a service ceiling of 28,000 feet, the C-74 receives its fuel from tanks which have a maximum capacity of 11,000 gallons. A crew of five is required to operate the big plane, while additional accommodations are avaliable for relief crews necessary on long flights. The main cargo storage section is 75 feet long, 62 feet of which is a constant cross section of 12 feet, 6 inches. Wing span is 173 feet, 3 inches and the overall length is 124 feet, 2 inches. The tail towers 43 feet, 8 inches from the ground. The plane can be used as a transport with enough room to accommodate 125 troops or 115 litters.

Records, 1946. In June 1946, General Spaatz, speaking of the world records established by the AAF after V-J Day, stated that at the beginning of World War II most of the performance records were held by other nations, including Germany and Italy, using their first line combat aircraft. With the exception of a few records held in large part by civilian pilots, the United States occupied the also-ran position, General Spaatz declared. But as the result of AAF funds spent during the war years for research, development and production of aircraft, the picture had changed and the Army Air Forces by the end of 1946 had already established at least 23 international and six national aviation records. Some of the 1946 records follow:

January 26. P-80 Shooting Star, Colonel William H. Councill, pilot, flew from Burbank, California, to Mitchel Field, New York, at 583 miles per hour, breaking record of Howard Hughes, 327.15 miles an hour, January 19, 1937.

April 19. P-80 Shooting Star, Captain Robert A. Baird III, pilot, made speed of 494 miles an hour over 100-kilometer course without payload, breaking previous record of 394.14 miles an hour held by Major General Ernst Udet of Germany in a Heinkel 112, June 5, 1938.

May 13. A B-29 Superfortress, Colonel E. D. Reynolds, pilot, reached altitude of 47,910 feet with payload of 1,000 kilograms, breaking previous record of 40,187 feet by Furio Niclet, Italy, December 9, 1937.

May 14. A B-29 Superfortress, Lieutenant J. P. Tobison, pilot, reached altitude of 45,252 feet with payload of 5,000 kilograms, breaking previous record of 34,025 feet by then Captain Clarence S. Irvine and Captain P. H. Robey, in a B-17 Flying Fortress, August 1, 1939.

May 17. A B-29 Superfortress, Lieutenant Edward M. Brabowski, pilot, flew 369 miles an hour over a 1,000-kilometer course with payload of 5,000 kilograms, breaking previous record of then Captain Clarence S. Irvine and Captain P. H. Robey, in a B-17 Flying Fortress, August 1, 1939.

May 19. Sikorsky R-5 helicopter, Second Lieutenant William L. Vavricka, pilot, and Second Lieutenant Kenneth R. Bloom, co-pilot, flew for duration record of 9 hours, 33 minutes and 27 seconds, breaking previous record of 1 hour, 32 minutes established by Igor Sikorsky, May 6, 1941, flying a Vought-Sikorsky helicopter.

May 22. An R-5 helicopter, Major F. T. Caschman and Major W. E. Zins, pilots, flew 705.3 miles, Wright Field, Ohio to Boston, straight-line course, breaking previous record of 143.06 miles made by Karl Bode, Germany, June 26, 1938.

June 3. An R-5 helicopter, Lieutenant Colonel K. S. Wilson, pilot, made 110 miles an hour over a 20-kilometer course, breaking previous record of 76.15 miles an hour made by Edward Rholfs, Germany, June 26, 1937.

Unification. The question of unification of the armed services and, specifically, the necessity for an autonomous AAF had been widely discussed in 1946. These points were scheduled for a prominent place on the Congressional agenda in 1947. The President had stated his position by pointing out the need for three coordinate services—the Army, Navy, and Air Forces, all on a parity basis and operating under the control and supervision of a Secretary of National Defense.

General Spaatz declared late in 1946 that the AAF needs autonomy, if it is to be an operationally ready, strategically deployed, and modernly equipped Air Force. He added that application of strategic bombing during World War II was an air power mission which surface forces could not accomplish. Secretary of War for Air W. Stuart Symington emphasized that unification of the armed services would provide the nation with maximum security at minimum cost and called attention to a Senate report on Pearl Harbor which he said showed that much of the responsibility for the setback then resulted from lack of Army-Navy coordination. He quoted from the United States Strategic Bombing Survey, created by Presidential directive, which stated, in part: "The lessons of the Japanese war strongly support that form of organization which provides unity of command capable of clear and effective decision at the top. Within a department of common defense which provides unity of command, and is itself orientated in the air and new weapons, the Survey believes that, in addition to the Army and Navy, there should by an equal and coordinate position for a third establishment."

Pointing to the need for co-equal status for air, land and sea forces, General George C. Kenney, commanding general of the Strategic Air Command, stated that "unification does not mean subjugation," and added that there would be "no submergence of our military forces" under the plan for unification which "the President has laid before Congress and before the people."

Airmen of the United States are not alone in these recommendations for autonomous air power. Viscount Trenchard, Marshal of the Royal Air Force, in a booklet entitled *Air Power and National Security*, parallels the recommendations of Mr. Symington:

"In the interests of economy and efficiency let the three Services be each in its own element and let them have true cooperation . . . not try to make each Service entirely self-contained within itself . . . with consequent wasteful *competition* and *expenditure.*

"Finally, I would emphasize the necessity of a

carefully considered allocation of the available money and material between the Services and based on a realistic outlook of our needs in war, but particularly in those vital opening stages of a war. In particular, I would emphasize that our main dangers in the future lie in the Air, and if we do not devote the major part of our resources to developing our own strength in the Air, we cannot hope to survive another world conflagration."

See DOOLITTLE RAID.

GEORGE E. STRATEMEYER.

ART. Against a background of national prosperity art flourished in 1946 as it had not since the pre-depression era. The art boom which began in 1943 was in full swing, and only a minor drop at the end of the year hinted that it might not continue forever. In the auction houses gavels rang down on sales which broke even the previous year's record high prices. In New York City, art capital of the nation, many new galleries appeared and established firms opened western branches.

If the art world reflected the financial good fortune of the country it did not mirror the spirit—the most striking feature of the first postwar year in art was an unmistakable turn to the esthetic left.

Trends. Despite the absence of any clearly defined aims in 1946 art activity was preponderantly left of center. This swing was evident in almost all of the larger national exhibitions including the Virginia Biennial, both Whitney annuals, the Carnegie "Painting in the United States," and the Pennsylvania Academy annual. There was an increased attention to fundamental problems of expression with the accent more on form and less on subject matter.

The past year, one of experimentation, saw increasingly more converts to modern movements—among the young artists as well as the older—many of whom "went modern" with belated interest. Those who did not turn directly toward the idiom of abstraction pursued a romantic, often fanciful ideal, which had supplanted defunct social realism.

Typical of the modern wave were most of the prize winners in national exhibitions. A five-man jury of artists awarded top prizes to Phillip Guston and John W. Taylor in the Virginia Biennial in Richmond. Other purchase prizes went to young "school of Boston" expressionist, David Aronson, and to Paul Arlt, Stephen Greene, Margaret Jensen, and Marion Junkin.

The most controversial award of the season was the first-prize winner in Pepsi-Cola's third annual, when $2,500 was won by Boris Deutsch of California for *What Atomic War Will Do To You,* a sincere warning which recalled Picasso's famed *Guernica* and which received every epithet from "truly great" to "distorted mockery." Excluding the backward-looking *Carnival in Madrid,* painted in old Flemish style by Lucio Lopez-Rey, which won second prize, other top winners in the exhibition were modern. These were by Robert Gwathmey, Abraham Rattner and Gregorio Prestopino. Other outstanding winners were Xavier Gonzalez, John Heliker, Virginia Cuthbert, Margaret Tompkins and Everett Spruce.

The 1946 Carnegie Annual of Painting in the United States (Pittsburgh's internationals are not to be resumed until 1948) also was characterized by progressive painting. A jury of three artists awarded the four major prizes to moderns. The first prize was awarded to Karl Knaths for his semi-abstract, *Gear;* the second to Jack Levine, for his bitter *Welcome Home;* the third to William Gropper, for a satiric *Don Quixote;* and the fourth to Bradley Walker Tomlin, for a poetic abstraction, *The Armor Must Change.*

The Pennsylvania Academy's 145th Annual opened in Philadelphia to display a gathering less conservative than usual. Headed by Morris Kantor the all-artist jury (which had invited the majority of exhibits and picked only 50 paintings from 2,000 submitted) awarded prizes to such moderns as Prestopino and Benjamin Kopman.

In Chicago's Fiftieth Annual Exhibition the $1,000 Walter Campana Prize went to Margo Hoff for *Murder Mystery,* a painting later selected for the Grand Central Galleries' winter "Critics' Choice" show—an exhibition of modern context.

The State Department also entered the modern art arena when, in response to specific requests from foreign governments for exhibitions of progressive United States art, LeRoy Davidson, head of the Department's active art program, picked two showings of contemporary art, one destined for the eastern hemisphere, with Paris the first stop, and the Latin-American republics second. Both exhibitions were first shown at the Metropolitan Museum. Generally approved by the art press which felt that Davidson had done the best he could with the meager funds at his disposal, the paintings drew fire from the conservatives.

Indicative of the 1946 international mood was the choice of Ralston Crawford, well-known abstractionist, as sole artist-correspondent to witness the Bikini tests. His painted report, when exhibited in New York, was good as abstract painting but told little about atomic explosion.

Art Travels Overseas. With wartime travel restrictions removed the year saw a startling amount of art travel overseas. First of the millions of dollars worth of art to cross the Atlantic was the journey to Washington of 200 German-owned masterpieces, valued at $80,000,000, (late in 1945) which ignited the biggest art controversy, running into 1946. The paintings had been discovered in a salt mine in the American zone of Berlin where they had been removed by the Germans from the Kaiser-Friedrich Museum, now in the Russian zone. Their arrival was greeted with approval, confidence in American motives and requests for public exhibition (for European benefit) by one faction, while an opposing school of thought, registered dismay at the "confiscation" and urged immediate return of the paintings.

The next large shipment of art, the first of a series of good-will exchanges, was an American loan of 230 oils and watercolors covering American art from Colonial times to the present, which had been invited for summer exhibition in London's Tate Gallery. Picked by some of the ablest museum directors in the country the handsome show received a mixed English reaction: enthusiasm for early British-inspired landscape art and lukewarm-to-antagonistic appraisal of all later paintings whose vigorous roots were not to be found close to the British island home.

When these paintings returned in September they were accompanied by a magnificent return gesture. Great Britain had passed an act of Parliament and enlisted the generous aid of her King, her top museums, and private collectors to send the United States 62 paintings only recently come out of wartime hiding, by her great trio Hogarth, Constable and Turner. And, at the end of the year, a grateful Holland sent America "a garland of thanks" in the form of 48 sixteenth and seventeenth century Dutch masterpieces, loaned as a token representation of Dutch art which had been

looted by the Nazis and recovered by the United States Army. Following December exhibition at the National Gallery, the paintings began a tour of those museums with which the men of the Army's art section are now associated as civilians.

Other transoceanic exhibitions included a group circulated by the State Department, including "Sixty Americans since 1800," a selection from the large collection of International Business Machines. After New York exhibition the collection was sent on a long tour, starting in Cairo and then on to Italy, where it was to be joined by other business collections to tour Europe under the heading, "American Industry Sponsors Art."

Museums Look Back. In a year of uncertainty and stock-taking many museums and galleries turned back to thoughtful reevaluation of earlier artists. Outstanding was the Whitney Museum's excellent fall presentation of America's earliest ranking painter, Robert Feke. Comprising 30 sensitive, highly skilled portraits by this self-taught Colonial the exhibition offered much nourishment for national pride. Another Whitney exhibition was that of William Rimmer, a Colonial sculptor and physician, whose growing reputation contrasts with present-day scorn for his sentimental contemporaries in sculpture. The George Walter Vincent Smith Art Museum celebrated its 50th anniversary by a presentation of 47 works by George Inness. The Brooklyn Museum honored a pioneer American Impressionist, Theodore Robinson, 50 years after his death. An over-all view of the Victorian art era in America was presented by the Metropolitan Museum.

In the Galleries. During a year marked by few spectacular debuts that of a young sculptor, Charles Salerno, attracted deserved attention when fourteen works from his first exhibition, all attesting to mature understanding of form, material and modern idiom, were sold to astute collectors. Romare Bearden, who caused something of a sensation among modern enthusiasts by his debut the previous year, revealed again in his second exhibition of abstract paintings sound exploration along a path crowded by unskilled artists who had read the signs to the left. Edward John Stevens, 23-year-old New Jersey painter of strange worlds, followed up an earlier, phenomenal success with a new group of intricately-patterned, compelling watercolors. Hyman Bloom, catapulted to national attention through the Museum of Modern Art's presentation, "Americans—1942," held his first one-man exhibition in 1946. Andrew Wyeth, youngest and most gifted member of the Wyeth family of artists, displayed again his rare technical virtuosity, fortunately matched by discrimination and sensitivity.

Painting by refugee artists, many of whom had become United States citizens, provided some of the most exciting exhibitions of the season. A retrospective showing of paintings and drawings by George Grosz was a memorable event, illustrating the great gifts and stylistic evolution of a significant contemporary painter. The figure of Karl Zerbe also loomed large on the national scene—both as an outstanding painter and an extraordinarily talented teacher. Zerbe's 1946 exhibition, the first in some years, was also his best to date, while the influence of his classes at the Boston Museum School was seen in the growing vitality of a group of young painters, headed by David Aronson, who were making Boston a progressive art center.

Among established artists who achieved successful changes of style in 1946 Charles Burchfield was outstanding. Deserting his romantic realism of the past thirty years, Burchfield exhibited a group of enormous nature fantasies that were strong and enchanting reworkings of 1917–18 watercolors of the four seasons. Prominent among the abstractionists was Bradley Walker Tomlin, who proved again, that in the hands of a sensitive artist, a primarily intellectual style could achieve both warmth and beauty of sensuous appeal. Irene Rice Pereira remained unchallenged in the realm of pure abstraction, while Stuart Davis continued to stand high among practitioners of dynamic, flat-patterned modernism.

In the growing school of romantic painters William Thon's exhibition of richly-painted, moody impressions of land and sea assigned him a leading position. Other distinguished works by artists in this group were shown by Jon Corbino (who continued to experiment with line and form); Henry Mattson, Jean Liberte, Hobson Pittman, Dan Lutz, and Ferdinand Warren.

From Reginald Marsh came further evidence of his power as a robust painter of the people's pageant. The first large eastern exhibition of mystic painting by Kenneth Callahan, curator of the Seattle Art Museum, was a rewarding presentation of an original artist.

Among the sculptors neither William Zorach nor Jose de Creeft presented new works of such impact as the former's beautiful *Victory* or the latter's magnificent *Head of Rachmaninoff*, but both maintained their positions as sculptors of the first magnitude. Hugo Robus, another sculptor of distinct stature, and Oronzio Maldarelli, were effectively presented in 1946, while Texan Charles Umlauf made an auspicious New York debut. Jane Wasey, Mitzi Solomon, Lu Duble and Doris Caesar were other notable exhibitors.

Foreign Art. For the first time in generations British art caused excitement in foreign art circles and it was from there, rather than France that most of the outstanding European art appeared (to Americans) to be coming in 1946. Climaxing the numerous American introductions to vigorous Britons, such as Graham Sutherland, John Tunnard and John Piper, was the Museum of Modern Art's presentation of sculpture and drawings by England's powerful sculptor, Henry Moore. Opened late in December, the exhibition was the most comprehensive accorded this compelling artist, in or out of his native land.

Contrasting, however, with the increasing influence of the modern movement in England was the reported public reaction to the controversial exhibition of works by Picasso and Matisse, held in England at the Victoria and Albert Museum. Other contemporary French art was shown in England at the Tate Gallery, which reopened seven of its forty damaged rooms with exhibitions of Bracque and Rouault. The Tate also announced a government grant for acquisition of contemporary art. The Royal Academy presented a comprehensive view of Greek art through 5,000 years. The National Gallery reopened to display masterpieces returned from wartime hiding in Wales.

France seemed well established along the road to recovery in art activity. Picasso exhibited what was reported to be "yet the most flabbergasting of his postwar shows," at the Galerie Carré. Most promising gallery in Paris appeared to be the Galerie de France, hospitable exhibition center for new talent. Featured exhibitions there were by Fougeron and Pignon, best known among the new group of French artists, and by Robin, Tailleux, and Talcoat.

Royally received among the artists who returned

to France from the United States was Marcel Vertès, whose entire exhibition of 50 works was sold during the first day of his Paris exhibition. Paintings by Enrico Donati and Arbit Blatas were also popular.

Other modern exhibitions in France included "Magie de la Realite," with works by Lepri, Tanguy, Berman, Humblot and others. The Palais des Beaux Arts offered a large, non-objective "Salon des realites nouvelles." Admirers of Delacroix found time to restore his Paris studio as a museum. Biggest popular hit of the summer season was a handsome presentation of "French Tapestry from the Middle Ages to the Present," which included recent tapestry designs by Lurçat, Saint-Saëns, Dufy.

Art journalism was enriched by the return of *Verve* (France) to its prewar lushness, and the appearance of several new publications, outstanding among which were a new French quarterly, *Art et Style; The Arts,* edited in London by Desmond Shawe-Taylor; and a promising *IL '45,* so called for the year of its native Italy's liberation.

Business and Art. Some happy strides were made in the fast growing sponsorship of art by industry for mutual advantage. The Pepsi-Cola Company hired Roland J. McKinney, former director of the Los Angeles Museum, to supervise its art program. Among other changes McKinney widened the scope of the company's national art competition, exchanged the dual jury system for seven regional juries, and discarded the bizarre installation which took a deserved castigation in the press last year.

La Tausca Pearls, which had sponsored a "Woman with Pearls" competition earlier in the year, also liberalized plans for its second competition (scheduled for 1947) and picked a jury of artists and museum directors to invite 100 paintings for the show with the arrangement that exhibitors be paid for the loan of their paintings, and be eligible for prize awards totaling $6,400.

Museum Acquisitions. It was an active year for museum expansion and acquisition. Des Moines saw the beginning of construction for a new art center designed by Eliel Saarinen. Richest acquisition of the year was a Kress gift, 110 Old Masters, which enriched the National Gallery for the third time, yielding fuller coverage of the Italian School and important additions to French, English, and German schools of painting and sculpture. The National Gallery also acquired its first painting by Ryder, the important *Siegfried and the Rhine Maidens,* purchased through the Mellon Fund.

The Boston Museum purchased an excellently preserved *Crucifixion* by Duccio, the Sienese master's seventh painting to reach America. The William Rockhill Nelson Gallery acquired a rare, late Velasquez portrait, *Mariana, Queen of Spain.* To the Minneapolis Art Institute went a *Prodigal Son* by David Teniers the Younger. The Springfield Museum purchased a fine Chardin still life and the Toledo Museum bought *Peasants Before an Inn* by Jan Steen. Chicago acquired Renoir's *Seated Nude.*

Theme Shows. Big theme shows indicated vigorous national activity and covered everything from the role of ancient animals and eternal nudes in art (in two splendid reviews at the Boston Museum and the Wadsworth Atheneum, respectively) to recent importations from Paris.

Primitive art was effectively presented by "Arts of the South Seas" at the Museum of Modern Art, which also honored its first woman in an exhibition by Georgia O'Keeffe. Most impressive of the Old Master exhibitions was staged by the Los Angeles Museum which borrowed 43 paintings by Rubens and Van Dyck for an exhibition arranged by the museum's new director-consultant, William R. Valentiner. French art received a glorious tribute in an all-star showing, "The Spirit of Modern France," cooperatively arranged by the Toledo Museum and the Art Gallery of Toronto, with loans from 30 public and private collections in Europe and America. British art was represented at the Boston Museum which held an important loan exhibition of landscapes by Turner, Constable, and Bonington.

Three shows which provided interesting examination of group taste were provided. The Akron Art Institute invited fifteen prominent figures in the art world to suggest 40 American paintings typifying the best in United States art, from Colonial days to the present. Of the 167 artists nominated the only unanimous choice was Albert P. Ryder. Homer, Eakins, and Inness received 14 votes each; Bellows, 13; Copley and Stuart, 12. Five contemporaries were named nine times: Hopper, Burchfield, Hartley, Marin, and Weber.

Later seventeen leading institutions loaned three "best American paintings since 1929" to the Rhode Island School of Design for its "Museum's Choice" exhibition. Leading "choices" were Hartley (first), Kuniyoshi, Watkins, Brook, Mattson, Burchfield, and Hopper.

In New York the Museum of Modern Art presented "Fourteen Moderns," a disappointing exhibition which introduced no new vital talent and yielded no broad picture of contemporary art.

An excursion into the past—the Whitney Museum's "Pioneers of Modern Art" (American)—assured observers that early moderns still looked valid in 1946, when they seemed more contemporary than the paintings belonging to the regional schools of the 1920s and 1930s.

Outstanding among the one-man shows were the large exhibition of Corot, presented at the Philadelphia Museum, and the comprehensive exhibition given Bellows at the Chicago Art Institute, 20 years after his death.

Sculpture. Sculptors spoke up at long last in two impressive December exhibitions: at the American British Art Center (New York) where 47 sculptors offered 47 easily transportable works in a "Suggestion to the State Department," which has neglected sculpture in its activities; and at the Architectural League (New York) where the Sculptors' Guild effectively proved that "Architecture Needs Sculpture."

An important museum show in the medium was the Detroit Institute of Art's searching exhibition, "Origins of Modern Sculpture." Sculpture was notably represented in the Whitney annual, which also leaned strongly left. In Minnesota the Sculpture Group collaborated with the Walker Art Center to present the largest regional sculpture annual.

Auction News. A startling total of $6,685,045 worth of sales broke all past records for Parke-Bernet's 1945–46 season, topping last year's figure by half a million. Highest price, $75,000, was paid by impressario-collector Billy Rose for Rembrandt's *Pilgrim at Prayer.* A Hals *Portrait of Joseph Couymans* brought $34,250; a Velasquez *Portrait of Girl,* $30,000. Growing demand for modern art was reflected in the $30,000 bid paid by a private collector for *La Buveuse* by Toulouse Lautrec and in $4,000, for a Bracque *Vase d'Anemones.* Typical of revived fashion for meticulous 19th century genre was a bid of $5,200 for Fortuney's *Breakfast at the Alhambra.* Other major auction galleries, Kende of Gimbel Brothers, Plaza Art Galleries

(both in New York) and Freeman Galleries (Philadelphia) saw similar prosperity.

Art Books. Despite continued printing difficulties publishers offered the most colorful lists since the war, but emphasis was largely on picture books. Distinguished among the more ambitious undertakings were: Arthur Upham Pope's *Masterpieces of Persian Art;* Max Raphael's *Prehistoric Cave Paintings;* Otto Benesch's *Art of the Renaissance in Northern Europe;* L. Bachhofer's *A Short History of Chinese Art;* C. Sachs' *Commonwealth of Art;* Arthur Stanley Riggs' *Titian the Magnificent;* R. Langton Douglas' *Piero di Cosimo* and a one volume edition of *Vasari's Lives,* edited by Betty Burroughs.

Art and Ballet. All four active ballet companies commissioned major artists for new decors, with notable stage art created by Chagall, Berman, Oliver Smith, and Cecil Beaton. Isamu Noguchi scored again with his sculptured objects for Martha Graham's dance concerts.

JUDITH KAYE REED.

ASIA. Including the Asiatic part of the U.S.S.R., the continent of Asia has an area of about 16,752,600 square miles and a population estimated at 1,200,000,000. See the separate articles on ARABIA, CHINA, INDIA, JAPAN, and the other Asiatic states and territories.

ASSEMBLIES OF GOD, General Council of the. A religious organization incorporated in Arkansas in 1914 by a group of independent pastors interested in a distinctively evangelistic type of mission work. Headquarters, 336 West Pacific Street, Springfield, Missouri.

ASTRONOMY. Notable progress in many directions has been made in astronomy during the year. Most scientists, now released from wartime duties, have resumed research in observatories, laboratories, and in theoretical studies. Challenges to orthodox concepts are frequently heard.

Two astronomers of the National Astrophysical Observatory at Tonanzintla, Mexico, Dr. C. Graef and Sr. L. E. Erro, suggest on the basis of recent calculations that the rate of expansion of the universe is not diminishing, and that the extent of space must be determined from old Newtonian concepts rather than from the newer relativity theory of Einstein. The Mexican scientists support the view that the red shift in the spectra of outer galaxies is due not only to their actual recession but also to cosmic effects which influence the photons of light traversing the great distances to the observer.

Dr. A. E. Whitford, of Washburn Observatory, using a photoelectric cell and other electronic apparatus attached to the 100" reflector at Mt. Wilson, has established a new technique in obtaining star diameters. The variation of the light of a star, as it is being occulted by the edge of the moon, gives a special pattern in diffraction images which is compared with the theoretical pattern for a point source of light. Results agree closely with other methods of computing stellar diameters.

Dr. H. S. Hogg, of David Dunlap Observatory, made further contributions concerning variable stars in globular clusters, noting that the average period of variables in some clusters is half a day and the frequency distribution of periods has only one maximum. In other clusters, two distinct maxima may be found, one of period one-third day and the other of period two-thirds day. No reason has as yet been indicated for these two types of variable star distribution. From other studies of these variables, it is suggested that the center of our Milky Way galaxy may be not more than 26,000 light-years away rather than the previously accepted 33,000.

The center of our Milky Way system has also been the subject of photographic study in infrared light for the purpose of locating the galactic bulge found in many other such stellar systems. The general position and form of this bright nucleus, or central clustering of stars, was established as running near and parallel to the galactic equator, and centered at longitude 326½° in the constellation Sagittarius.

During the year two more novae were added to the list of repeaters, which now totals six according to Harvard astronomer M. W. Mayall. T Coronae Borealis, which last underwent an outburst in 1866, again flared up on February 9, from 10th magnitude to 3.2. Unlike normal novae, its spectrum indicated no main shell of ejected gas, but simply a continuous ejection at decreasing speed, according to Dean B. McLaughlin of the University of Michigan Observatory. After a precipitous decline, the nova climbed to a secondary maximum of about 8th magnitude in June, the entire light-curve being remarkably similar to the 1866 performance. Nova Sagittae 1913 also had another outburst on June 28, increasing from a normal of somewhat less than 11.8 to about 8th magnitude.

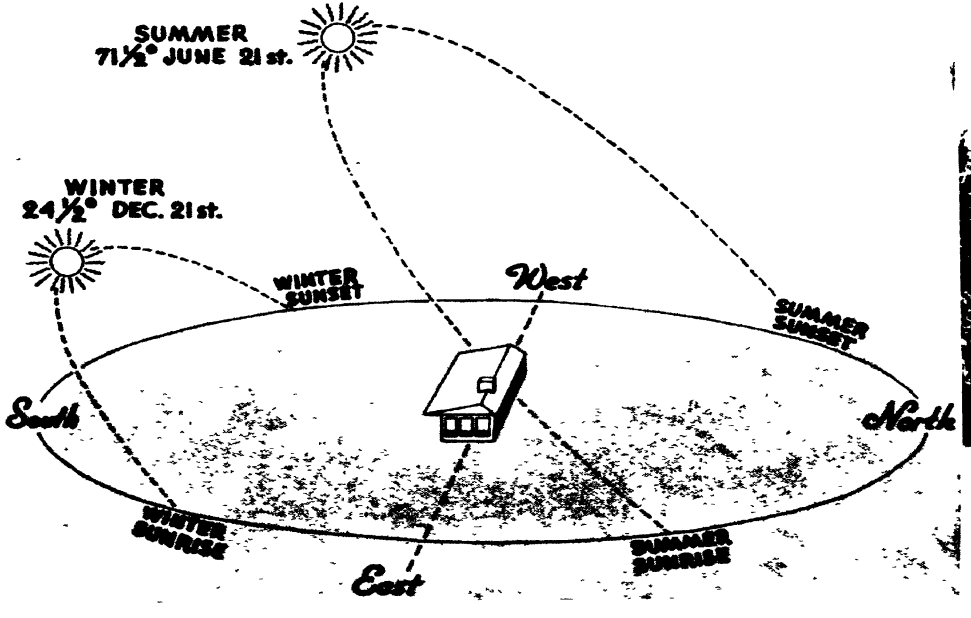
Comet Brooks of 1889, having a period of seven years, was again seen on June 29 by Dr. H. M. Jeffers at Lick Observatory. Its magnitude was about 18. When this comet was first seen in 1889, Barnard noticed it was attended by four faint companions, the probable wreckage of a close encounter (55,000 miles) with Jupiter, calculated to have occurred in 1886.

Dr. G. VanBiesbroeck of Yerkes Observatory, working with the 82" McDonald reflector, observed Comet Oterna near its aphelion, or orbital position most distant from the sun. This comet and Comet Schwassmann-Wachmann share the distinction of being the only comets visible from the earth throughout their entire orbital paths around the sun.

From wartime research came the development of the icaroscope, a new optical device for observing objects in the sky near, and in front of, the sun. The solar image and surrounding sky are projected on a phosphor-treated screen. The special phosphors have strong afterglow properties which are, however, not much greater for exposure to the sun than for the surrounding sky, thereby reducing the contrast and permitting simultaneous observation of the sun's disc and nearby objects.

A widespread, brilliant aurora was seen on the night of July 26–27 by many observers in the United States, following the appearance of a large sunspot group seen from the U.S. Naval Observatory on July 9. The Bureau of Standards has established a new service warning of radio blackouts to be expected from solar magnetic storms and ionospheric changes following solar eruptions. Radio specialists of the Carnegie Institution have developed a pulse-ranging technique (similar to radar) to detect ionosphere effects produced by clouds of charged particles released from sunspots.

On January 10, scientists of the U.S. Signal Corps at Camp Evans, under the direction of Lt. Col. J. H. Dewitt, succeeded in getting radar echoes from the moon, the pulses being reflected back in a period of 2.4 seconds. The method used indicates further research along the following lines: (a) radio contact with rocket ships or pro-



SOLAR HOUSE

Left Solar house with glass walls and double-paned insulating windows called Thermopane (*Libby-Owens Ford Glass Co*) Chart (underneath) shows position of the sun at noon in Chicago (*Hedrich-Blessing Studio*).

U S. Steel Corporation

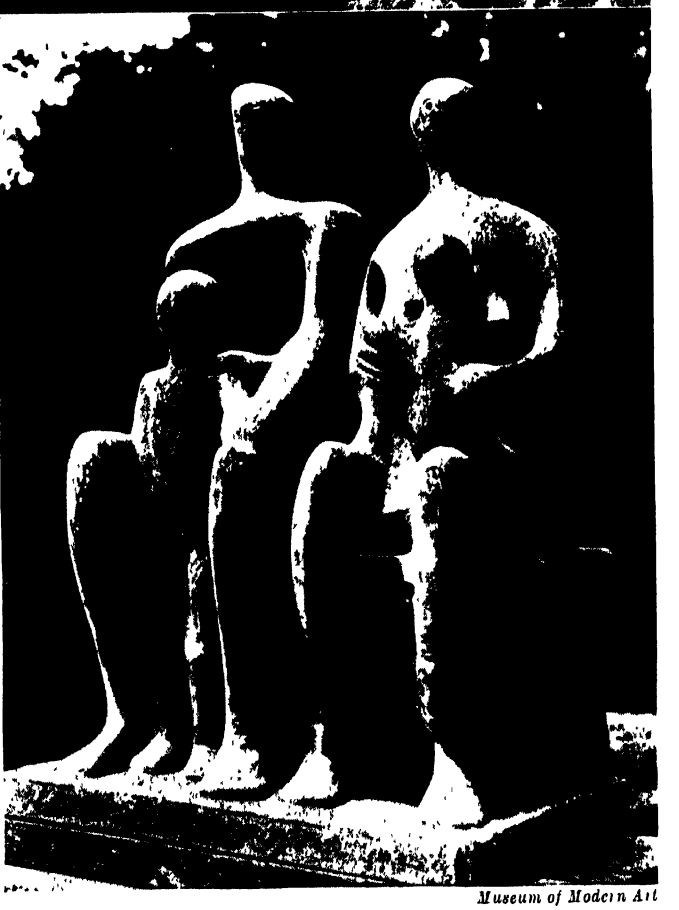
STEEL HOUSE

Above A new type of home designed to give greater strength, unvarying dimensions and smooth surfaces.

ANNUAL AWARDS IN ART

Left: What Atomic Energy Will Do To You, by Boris Deutsch, awarded $2,500 first prize; *right. Mother and Child,* by John Wilson which won $250 popular award and one of $500 awards in Pepsi-Cola's Third Annual Art Competition, "Paintings of the Year." (*Photos by Moore*)

Colton Photo



Museum of Modern Art

Above The Family, by Federico Castellon, etching which won a $1,000 prize in the First Annual Competition sponsored by the Associated American Artists Galleries *Lower right. Family Group, 1946,* bronze, 17⅜" high, by Henry Moore

Above. PRIZE WINNER: *Lime Kiln,* by Francis Barone, winner of $1,500 Fellowship in Pepsi Cola's Third Annual Competition, "Paintings of the Year" (*Willet*). *Below·* EXHIBIT: Bertha King Benkard Memorial. Early 18th Century bedroom (*Museum of the City of New York*).

jectiles far out into space, (b) study of the propagation of radio waves through the earth's atmosphere, (c) use of the moon as a reflecting surface for terrestrial radio communication, (d) more accurate determination of the radial component of the moon's orbital velocity.

Dr. Harlow Shapley, director of Harvard College Observatory, pointed out the possibility of creating and putting into operation a second "moon" of the earth, the satellite to be released from a V-2 rocket at an altitude of a few thousand miles above the earth. Also suggested are somewhat similar devices for creating a perpetual eclipse of the sun, for maintaining a high-altitude observatory, for study of cosmic rays, and for measuring incoming ultraviolet and infrared rays beyond the extreme reaches of the earth's intervening atmosphere. Apparatus has already been designed to obtain, in this manner, solar spectra and cosmic ray data. Dr. Fritz Zwicky of California Institute of Technology has devised a meteorite to be rocket-launched at a height above 100 miles.

Along similar lines, Dr. H. H. Nininger proposes the creation of an artificial meteor shower by exploding on the moon an atomic bomb carried there by a rocket. The disturbance should be of sufficient intensity to hurl fragments of the moon's surface back to the earth as a meteor shower.

On the night of October 9–10, there occurred a spectacular display of "shooting stars," visible over the greater part of the United States. As many as 60 to 100 meteors per minute were counted by observers during the period of maximum intensity. The display was considered by many to be the greatest single predicted event of the century.

There was a partial eclipse of the sun on November 23, accompanied by the appearance of two unusually large groups of sunspots.

At the spring meeting of the American Association of Variable Star Observers, announcement was made of the attainment of the millionth observation,—the culmination of 35 years of work by its members, many of whom are skilled amateur astronomers.

On July 5–7 at Cranbrook Institute near Detroit, amateur astronomers from all parts of the United States met for their fourth national convention. Announcement was made of the imminent formation of a federation of amateur societies, a plan first conceived in 1939 by the New York City Amateur Astronomers Association for the purpose of public education in astronomy and to assist professional astronomers in certain phases of their work.

Hurstmonceaux Castle in Sussex, England, was selected as the new site of the Greenwich Observatory which, at its former location, marked the principal meridian (zero longitude) of our terrestrial globe.

The world's largest reflecting telescope, the 200" at Mt. Palomar in California, scheduled for completion early in 1947, will be used chiefly on projects requiring its great light-gathering power, such as in large-scale spectroscopic work on the brighter stars, and in studying the fainter extra-galactic nebulae.

Bibliography. *Sky and Telescope* (magazine), Cambridge, Mass.

GEORGE V. PLACHY.

ATOMIC ENERGY. The year 1946 saw the beginning of an advance toward the alluring goal of industrial use of atomic energy.

In the preceding summer, the world had been startled by the devastating blasts at Hiroshima and Nagasaki, which gave spectacular proof of terrifically concentrated energy within the nucleus of the atom, but the seeds of this momentous development had been sown many years earlier.

Matter and Energy. Einstein had shown in 1905 that in theory matter and energy are interchangeable, although it was not until 1932 that the validity of his theory was conclusively demonstrated by laboratory experiment. His now famous equation—$e = mc^2$, in which e represents energy, m mass, and c the velocity of light, shows how great is the energy corresponding to a very small mass, for c is very large. According to this formula, if 20 pounds of matter could be wholly converted into energy, it would equal approximately the total energy generated by the electric power industry of the United States in a year. But in the laboratory experiments in which energy was produced from mass, by causing the fission of atomic nuclei by bombardment with fast-moving particles, the energy expended in accelerating many bullets required to produce one hit was much more than the energy recovered from the resulting fission. It became, therefore, a topic of academic debate, whether the nuclear energy known to exist could ever be made usefully available.

The Chain-Reaction. At last, however, shortly before the war, it was shown that one rare form of atom, the isotope of uranium known as U-235, which is radioactive, might, in favorable conditions, produce a "chain-reaction." An atom of U-235, when it undergoes fission, gives off from 1 to 3 neutrons, which are capable of producing fission in other such atoms, thus giving a self-sustaining process.

This process is analogous to an ordinary chemical reaction In the familiar process of combustion, when carbon is heated to make it combine with oxygen in air to form carbon dioxide, energy is given off, since the atoms in the CO_2 are more tightly bound together than were the carbon atoms to each other in the fuel, and the heat they produce ignites other parts of the fuel mass, so that the process continues until all the fuel is consumed. Although it is now realized that the energy produced by combustion must be accompanied by a loss of mass, such loss has never been observed. However, the application of Einstein's formula shows that the loss is too small to be measurable.

The energy produced by atomic fission is vastly greater, in proportion to the masses involved, than in combustion and the loss of mass is consequently measurable by laboratory instruments. Such measurements were made by Cockcroft and Walton in 1932, and the results were found to be in close agreement with those predicted by the Einstein formula.

The Atomic Bomb. At the beginning of the war, in 1939, the chain-reaction above referred to had not yet been produced, but it was realized by physicists in that year, as the result of analysis of experiments with uranium 235, that such a reaction was conceivable and possibly attainable. The fundamental phenomena which would be involved were already clearly understood, and although a formidable array of scientific and technological problems stood in the way, it was believed that with sufficient ability, persevering faith, and financial backing, there was a reasonable chance of embodying the chain-reaction of U-235 in a new and supremely powerful weapon—an atomic bomb. The physicists and engineers supplied the ability and faith, the government the financial backing, and the War Department organized and supervised the project, now known as "Manhattan District," under the command of Major General L. R. Groves. The chain

reaction was first produced at the Chicago laboratory on December 2, 1942, and the final outcome stunned the world by the blast at Hiroshima, on August 5, 1945.

The atomic bomb development had been guarded in closest secrecy, but shortly after Japan's surrender there appeared, with the approval of General Groves, an informative report by Professor H. D. Smyth, describing in considerable detail the principles involved in that development, the problems that were met, the steps taken to solve them, the methods used in the production of fissionable materials, and in short, the whole story, except for some details of apparatus design and operation and the design of the bomb itself which is still kept secret. That excellent report, entitled, "A General Account of the Development of Methods of Using Atomic Energy for Military Purposes under the Auspices of the United States Government, 1940–1945" may be referred to for much fuller detail than can be given in this article, which is aimed primarily at the steps taken in 1946 toward the industrial application of atomic energy.

For convenience in understanding those steps, part of the subject matter of the Smyth report will be briefly sketched.

Energy from Mass. It is known that every atom consists of a nucleus surrounded by electrons. Nearly all the mass of the atom is in the nucleus, and is made up of positive particles called protons and particles of approximately equal mass but with no electric charge, called neutrons. Only the outer shell of electrons is involved in chemical reactions, such as combustion, the nucleus remaining unchanged, but when the nucleus is penetrated by a sufficiently intense disruptive force, it flies apart, splitting the atom into two others of different kind. This is what is meant by atomic fission. While radioactive disintegration of the nucleus proceeds automatically in radioactive elements such as radium and uranium, it was not until 1919 that fission was first produced in the laboratory by Rutherford. The forces binding the elements of the nucleus together are enormous so that the energy developed at fission is very great. It is this energy which gave the atomic bomb its terrific destructive power, and it is the constructive utilization of this energy for producing industrial power that is now being vigorously attempted.

All present development starts with the relatively rare atom, uranium 235, which constitutes only 0.7% of natural uranium. Its peculiar property which gives it unique value for the purpose is that it readily absorbs a slow-moving neutron which enters it, and thus forms a new nucleus which is unstable and immediately breaks into two parts of unequal but comparable mass, which fly apart with tremendous energy. The sum of the masses of the two parts is less than that of the original atom of U-235 by 1/10th of 1%, and it is this difference of mass which appears as energy in accordance with the Einstein formula.

That this was the process which took place when uranium was bombarded by neutrons was first suggested by Frisch and Meitner in 1939, and from this suggestion the possibility of a chain-reaction was perceived, since each atom of U-235 which undergoes fission releases from one to three neutrons to split other atoms and so continue the process.

In the atomic bomb, the reaction is instantaneous, so that the whole available energy is released in a single devastating blast. For industrial power a much lower rate of energy release is essential, and fortunately that rate is readily controllable. But before considering the means by which the control is effected, a few more physical facts must be brought into the picture.

Uranium and Plutonium. Uranium 235, as has been said, is rare, and its separation from natural uranium is costly, since it cannot be accomplished by chemical means. It obviously would be more economical if natural uranium could be used, and that would increase the world's supply of atomic fuel by 140-fold. It is equally obvious that natural uranium under ordinary conditions will not support a chain-reaction, for if it did there would be no uranium left on earth today. The reason for the relative stability of natural uranium is that the neutrons emitted by the automatic fission of the small amount of U-235 are for the most part absorbed by the U-238, which constitutes nearly all the mass of natural uranium. This absorption does not result in fission but in the formation of another isotope, U-239, which is found in minute quantities in natural uranium.

It was found, however, that if the neutrons emitted by U-235, which initially have a very high velocity, are slowed down by collisions with non-absorbing atoms, they not only become more effective in producing fission of more U-235 atoms but also produce fission in U-238. The absorption of these slow neutrons by U-238 results in the formation of a new element, neptunium, which quickly changes into another new element, plutonium. Plutonium, like U-235, undergoes fission when bombarded by slow neutrons and gives off more neutrons to continue the process, and so is equally capable of maintaining a chain-reaction. By the use of these transformations all, or nearly all, of the natural uranium may be used as fuel for atomic power.

The Nuclear "Pile." The means by which these reactions are produced and controlled is called a nuclear reactor or "pile." Its two main elements are the fuel, that is, the fissionable material, and the so-called "moderator" for slowing down the neutrons. These elements are surrounded by a reflector to minimize the loss of neutrons from the pile, and a shield for the protection of personnel from lethal radiations emitted in the process. Control of the rate of reaction is obtained by means of rods of neutron-absorbing material, which can be pushed in to slow down the reaction or withdrawn to accelerate it. Utilization of the heat energy generated in the pile may be accomplished by a fluid or vapor heat-interchanger, which carries the heat to the power generator, which may be a steam boiler and turbine, a gas turbine, or other conventional apparatus.

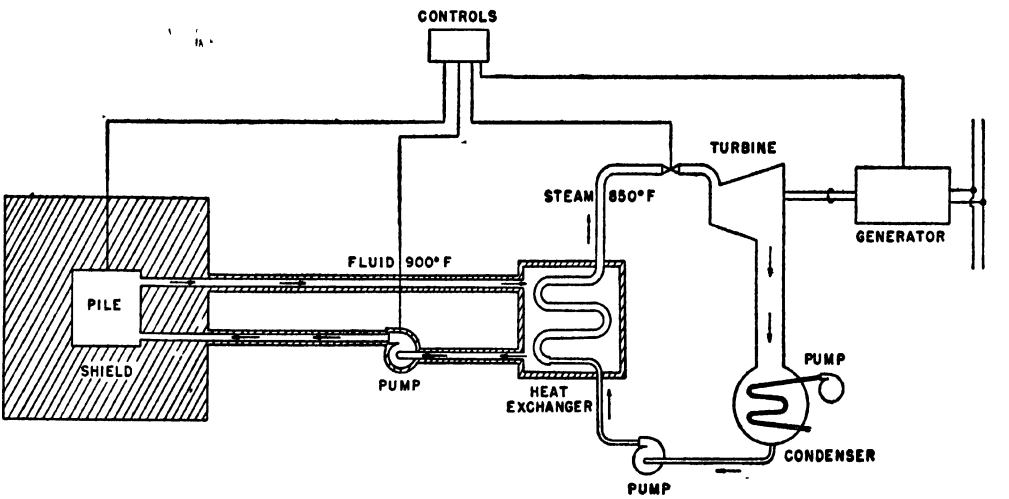
Thus simply presented, it might seem that the way is clear to the immediate construction of an operative industrial power plant using atomic energy, but those familiar with the development are acutely aware of the multitudinous problems, physical, chemical, metallurgical and mechanical, which obstruct the path and which must be solved by intensive and probably prolonged effort in research and engineering before the desired goal can be reached.

The metallurgical problems alone, involved in the development of an atomic power plant, may take years to solve. For example, the fundamental principles of the gas turbine have been well known for decades, yet it is only within the past very few years that alloys have been developed which will withstand the necessarily high operating temperatures, and so only now is the gas turbine beginning to come into use.

The probable peaceable uses of nuclear energy

power plant which appear on the horizon today may be divided into two broad classes: (a) the production of power for industrial and domestic use, and (b) the production of radioactive isotopes for biological, chemical, metallurgical, and other uses. The use of atomic explosives to produce desirable (?) results, such as blasting the ice caps in the polar regions, has also been suggested, but hardly seems likely.

Atomic Energy Power Plant. Let us first consider a possible form of nuclear power plant, and some of the engineering problems which must be solved to make it a reality. In a nuclear reactor, or "pile," the energy resulting from fission appears as heat, at almost any temperature at which we wish to—or rather, can—use it. We see no feasible way today of extracting this energy directly as electric power, and so must confine our thinking to ways and means of extracting the heat and converting it into electrical power through more or less conventional apparatus.



TYPICAL ATOMIC ENERGY POWER PLANT

It seems reasonable now that the first atomic power plants will consist of the following major elements: (1) A nuclear reactor or power pile, in which chain reacting fission takes place, generating heat, which is absorbed by (2) a heat transfer medium, either a liquid or a gas, which will absorb the heat generated in the pile and deliver it to (3) a heat exchanger, in which the heat will be delivered to a liquid, converting it into a vapor, or to a gas, which in turn will be delivered to (4) a steam or gas turbine-electric generator unit.

According to present conceptions, the atomic energy power plant will take some such form as is shown in the accompanying diagram. The fission unit, or "pile," with its heavy shield may be connected to a heat exchanger by a transfer system comprising a fluid, and a pump for circulating it, at a temperature of the order of 900° F. In the heat exchanger, which corresponds to the usual boiler, this fluid generates steam at a somewhat lower temperature. The steam is supplied to a conventional turbine which is equipped with the usual condenser and pumps, and which drives an electric generator in the usual manner. The controls include the control of the neutron-absorbing rods in the pile, the regulation of flow in the transfer system, and the usual speed-regulation of the turbine and voltage regulation of the generator.

Engineering Problems. The most puzzling of the engineering problems to be solved lie in the design and construction of the "pile," and the selection of the heat transfer medium. The plutonium producing "piles" at Hanford Engineer Works, Richland, Washington, produce large quantities of heat, but are not so constructed that they can be operated at high enough temperature or pressure to make this heat commercially useful, and so the energy is dissipated in the Columbia River. Depending on the concentration of fissionable material in the "fuel" employed, the power density in a chain-reacting "pile" can obviously vary all the way from that in the low temperature Hanford "piles" to that in the atomic bomb. So the allowable power density in the pile is fixed by the rate at which heat can be carried away from it, and not by the rate at which it can be generated.

Therefore, the selection of the heat transfer medium will have a most important influence on a "pile" design. Many types of mediums must be studied and tested, ranging all the way from liquid metal alloys to gases.

The medium should have a high specific heat, to carry as much heat as possible for a given volume. If its latent heat of vaporization is to be utilized, the neutron absorption characteristics of unit volume of its vapor should be about the same as for unit volume of the liquid. This is desirable, to prevent changes in the ratio of liquid to vapor within the pile from altering the neutron flux intensity or distribution. The medium should have low neutron absorption characteristics. Consideration must be given to the susceptibility of the medium to atomic transmutations on the characteristics of the medium.

The medium must be of a type which will reduce to a minimum, and preferably eliminate, corrosion and erosion of the heat transfer surfaces within the pile. In addition to the ordinary problems of chemical corrosion, atomic transmutations in the heat transfer medium or surfaces may have deleterious effects, effects which will be cumulative throughout the life of the "pile." And it must not be forgotten that because of the ever-present neutron and gamma radiation, repairs will be most difficult, and inspection for incipient failure may be impossible.

The perfect heat transfer medium will probably

never be found. Practical ones certainly will be.

In the design of a given pile, the most desirable type of "fuel" must be determined. Shall it be purified natural uranium, as in the Hanford piles, or shall it be uranium enriched in U-235, or with plutonium, and if so, what degree of enrichment? It seems probable that at some time in the future we shall have both types of piles operating regularly and concurrently; the lowpower density natural uranium pile for the production of plutonium, with power produced as a by-product; and the higher power density enriched pile primarily for power production. The first might be termed a primary pile, as it utilizes the natural material and produces an artificial fissionable material as well as power. The second might be termed a secondary pile, utilizing as its active agent material produced in the primary pile, and producing power. Incidentally, in terms of the United States proposal for international control the first type of pile would definitely be in the "dangerous" class, and thus restricted to operation by the International Authority, while the second might possibly be in the "safe" classification.

In determining the type of material to be used as a "moderator" in the pile, to slow down the neutrons, both structural and nuclear-physical characteristics much be weighed. In the "piles" at Hanford, graphite has been used successfully. Heavy water, or other substances might also be employed.

Selection and design of structural elements in a "pile" involve problems not present in ordinary steam power plant construction. All material within the "pile" is subjected to heavy neutron and gamma ray bombardment, and so its stability under such radiation must be good. Low neutron absorption is very important. It, of course, must withstand the temperature and pressure conditions with absolute reliability. Throughout the design every possible precaution must be taken against failure of any element within a "pile," since repair or replacement after a "pile" has been in operation may well be impossible.

The whole "pile" must be surrounded by a radiation shield of several feet in thickness, to protect personnel from the lethal neutron and gamma radiation.

Provision must be made for inserting "fuel" and removing "ash" through the shield, bearing in mind that the "ash" will be highly radioactive and therefore must be handled with adequate shielding. It will probably be necessary to provide chemical processing equipment for reclaiming unused "fuel" from the "ash."

The rate of activity of the "pile"—that is, the rate of power generation—will undoubtedly be controlled by adjusting the position of neutron absorbing control rods extending into the "pile." These rods may be of steel containing boron, or some other suitable material.

One of the difficult problems is that of bringing the heat transfer medium into adequate contact with the active material so that the heat generated can be carried off, and yet it must be absolutely impossible for any of the active material, and especially the fission products, to be carried by the transfer medium out beyond the heavy shielding of the "pile."

Beyond the pile proper the engineering problems are much more within the scope of past experience. It is true that shielding for gamma rays will have to be provided around the heat exchanger, and around the piping and other equipment between the "pile" and heat exchanger, as the heat transfer liquid or gas probably will become somewhat radioactive. For such shielding, however, a few inches of lead should suffice. From the heat exchanger to the turbine and around the turbine itself, no shielding should be necessary, and conventional equipment can be used.

Economic Factors. Now let us consider some of the economic questions involved in developing industrial and domestic power from atomic energy. Here unfortunately, our information is even less complete than in the domain of engineering.

We know that if one pound of Uranium-235, or of plutonium, undergoes complete fission, the energy liberated in the form of heat is approximately equal to that from burning 1,500 tons (3,000,000 pounds) of coal. So compared to coal at five dollars per ton, we could afford to pay $7,500 for each pound of material which we can make undergo complete fission—that is, assuming that all other costs of operation and fixed charges on the two types of plants are equal.

But how much does a pound of fissionable material cost—or rather how much is it likely to cost when we get to the point of using it in power plants? Like so many of the questions raised in this paper, the answer is unknown.

If we consider a natural uranium "pile," for each pound of fissionable U-235, there will be 139 pounds of U-238. So if we could utilize all the U-235, one might say we should be able to pay $7,500/140, or approximately $55 per pound for purified natural uranium. This ought to be ample, based on pre-war prices, but with the unusual conditions existing today with respect to this material, it is impossible to estimate what the price may be. No data are generally available as to what percentage of the U-235 will undergo fission before it is necessary to remove the uranium from the "pile." Of course, some plutonium will be produced as the U-235 is dissipated. How much, and how much it costs to separate the plutonium for use in other "piles" are questions to which the answers again are not available.

All in all, it seems certain that for some time to come at least, the generation of power from nuclear fission will be much more expensive than from the more common sources of energy. However, it seems equally certain that through research and development, requiring probably a very considerable number of years, we shall find ways and means of utilizing economically for the welfare of mankind, the energy released by "splitting the atom."

Even before the cost of atomic energy is reduced enough to make it competitive with energy from conventional fuels in localities where the latter is relatively cheap, the uranium pile may find profitable applications where fuel is costly, as for instance at remote mines where much transportation cost could be saved by reducing the ore locally.

The "fuel" supply for atomic energy power plants presents no immediate problem. While we have spoken of U-235 as a rare form of atom, natural uranium, which is now available as "fuel" by means of the plutonium transformation, is not a rare element. It has been estimated that the deposits of uranium exceed the total of the world's deposits of silver, mercury and antimony combined. Also, thorium, which is more abundant than uranium, while it now cannot be used alone to produce atomic energy, may be used for that purpose in combination with uranium and so enlarge our supply of atomic "fuel."

The efficiency of the pile is reduced by the

escape or unproductive absorption of neutrons. The percentage of escaping neutrons decreases as the volume of the pile increases, which is the reason why there is a lower limit to the economic size of pile. Some neutrons are necessarily absorbed by the moderator, by the heat-transfer fluid, and by the structural materials used in the pile. In addition to this, certain materials, which may be present in very small quantities as impurities, may be very active absorbers of neutrons, and so may act as poisons which, if present in large enough amounts, would stop the chain-reaction. A material of this sort is boron, which is often present as an impurity in graphite. This means that particular attention must be paid to the purity of the materials used in the pile. There is, however, one class of poison impurities which is inherent to the pile. We have seen that the fission fragments yield several dozen different elements, some of which absorb neutrons very readily. These fission products are accumulating whenever the pile is producing power, and eventually would poison the pile enough to stop the chain reaction. It will be necessary, therefore, to remove the active material periodically from the pile and extract the poisons. It is thought that the pile can be designed so that this need be done only at long intervals, thus making economical and practical operation of the pile possible.

All materials in the pile are continually being traversed by large numbers of neutrons and by intense gamma radiation. These radiations produce change in the atomic structure of all materials in the pile. Neutron collisions displace atoms from their normal places in the crystal lattice. New elements are formed by nuclear transmutations caused by the radiations. As a result of this the physical properties of all materials in the pile may be profoundly affected after long-continued operation. The term "radiation stability" refers to the changes produced in materials by such exposure. This is a subject which will demand a good deal of experimental study before deciding on the materials to be used in an atomic power pile.

Safeguards. It is necessary that any discussion of a uranium power pile should place a great deal of emphasis on the safety requirements which must be fulfilled by the shielding, but it should not be inferred from this that the operation of such a pile is an extremely hazardous undertaking. The hazards peculiar to the pile may be divided into three groups: (1) the possibility of the chain-reaction getting out of control and producing something like a violent boiler explosion; (2) hazards from the radioactivity of the pile in normal operation; (3) hazards incurred from radioactivity in transferring material to or from the pile. As regards (1), extra safety control rods can be provided which can be automatically inserted in the pile whenever the energy output of the pile increases too fast, and which will absorb so many neutrons that the chain-reaction cannot take place. As regards (2) and (3), measuring instruments are available which can detect much smaller amounts of the dangerous radiations than are toxic to humans, so that the hazards from this cause can be detected and controlled long before they become dangerous.

Applications of Atomic Power. As to probable or possible applications of atomic power, one of the most likely seems to be propulsion of naval vessels. It is conceivable that an atomic-powered ship might have a range of thousands of miles without refueling. This, of course would be of great importance to a navy, and might readily justify a high first cost and high fuel cost. The heavy shielding required for the nuclear unit would not be a serious handicap on a large ship. Atomic power sounds particularly attractive for submarine use, providing space can be made available for the shielding.

As development proceeds, following application on shipboard may come land power plants in locations where power is needed but ordinary fuel cost is very high.

Application of an atomic power plant on a locomotive seems remote and perhaps impossible because of the space and weight requirements of the shields. The same factor makes the application to inhabited aircraft an extremely difficult problem. And it must be obvious that direct use of atomic energy in an automobile, or in one's home, is for the forseeable future entirely out of the question.

Radioactive Isotopes. Now let us turn briefly to another application of nuclear energy which may well bring as great or greater benefits to humanity than the production of industrial power. This is the manufacture of radioactive isotopes through the exposure of selected materials to the high-intensity neutron flux in a nuclear reactor. The useful applications of such isotopes already being made and others that can be foreseen are very numerous, and research is certain to reveal many more. The utility depends on the two facts, that radioactive atoms behave chemically like ordinary atoms and that their presence in minute amounts is readily detectable without a destructive analysis of the sample. For radioactive analysis the sample need not be purified. The sensitivity as compared with chemical analysis, is increased 100-million-fold. The use of a radioactive isotope of an element makes it possible to follow that element through a complicated chemical or metallurgical process, even when it is present only in high dilution.

Similarly in biological studies radioactive isotopes may be used as "tracers." Thus the iodine intake of the thyroid; the concentration of salts in blood plasma and cells; chemical processes in plants, such as photosynthesis; and many other biological processes may be readily studied, with the hope of alleviating many human ailments and increasing the yield of crops.

Moreover, radioactivity initiates many chemical reactions. This may prove important in the chemical industry, and has already proved helpful in therapy. Radioactive phosphorus and iodine are the most effective therapeutic agents yet known in the treatment of certain diseases. The radium treatment of cancer is well known, and the power pile makes available relatively large quantities of radioactive material to supplement the small amount of radium in existence. Such material may also be used in place of x-rays for producing and studying genetic changes, for some kinds of radiography, or for dissipating annoying static charges on machines.

Certainly we are able to foresee now only a small fraction of the possible uses of these products of the "atomic pile." It is a fascinating field for speculation.

Research. The chief engineering problems, which are now foreseen and which must be solved before economic industrial power may be derived from atomic energy, have been briefly sketched in the preceding discussion. These problems are posed by our present knowledge of the basic phenomena of nuclear fission. As that knowledge is advanced and expanded by research, new technological aspects may appear to complicate or simplify the development, and research is being vigorously pushed in many quarters and by many investigators both in this country and abroad.

Four laboratories have been authorized by the War Department, and two of them are already in operation under government sponsorship. One of these is the Clinton Laboratory at Oak Ridge, Tennessee, now operated by the Monsanto Chemical Company, and the other the Argonne National Laboratory at Chicago, operated jointly by a number of midwest universities. Two others are being rushed to completion—the Brookhaven National Laboratory on Long Island, New York, to be operated by eastern universities, and the Knolls Atomic Power Laboratory at Schenectady, New York, to be operated by General Electric Company. Meanwhile the production of fissionable material is continuing at Oak Ridge and at Hanford, Washington, where the plants have been taken over by the Tennessee Eastman and Union Carbide and Chemical Companies and by General Electric Company, respectively.

Tools for Research. Research is directed primarily toward a fuller knowledge of nuclear reactions. Powerful tools for producing nuclear fissions are already in operation and others are being developed. The earliest to be constructed was the cyclotron, which accelerates positive ions in a direct current magnetic field by means of electrostatic forces to velocities corresponding to many millions of volts. This was followed by the betatron, which accelerates electrons in an alternating current magnetic field by means of electro-magnetic forces, and produces x-rays of 100,000,000 volts and more. The principles of both cyclotron and betatron have been described in past years.

The energy obtainable from a betatron of given size has recently been increased by providing a direct current bias of the magnetic field, which makes it possible to accelerate the electrons throughout nearly one-half of the magnetic cycle, instead of one-quarter as in the unbiased betatron.

A newer device, the synchrotron employs a magnet and a doughnut-shaped tube similar to those of the betatron, but the vacuum tube incorporates a high frequency resonant cavity energized by a radio frequency oscillator. Electrons are injected into this tube at high energies and take a circular pattern and acquire a stable orbit as in the betatron. The chief accelerating force, however, is provided by the resonant cavity, through the gaps of which electrons acquire multiple accelerations in the electric field, in a manner somewhat similar to that in the cyclotron. By the use of this principle, it is hoped to accelerate particles to still higher energies than in the biased betatron of equal weight.

Because the acceleration is chiefly provided by the electric field, there is a considerable change in the diameter of the orbit during the complete acceleration cycle. This leads to a cross-section of tube which is awkward to construct. To overcome this difficulty a still newer device is under employment, which consists of a small betatron built into the synchrotron. In this device the betatron supplies electrons at two million volts energy to the synchrotron cavity. Since these electrons are already moving with 98% of the speed of light, no great change in orbit diameter occurs with subsequent acceleration.

A still further alternative method of accelerating particles is the wave guide accelerator or linear accelerator. Radar work during the war greatly advanced the art of radio circuitry and electronics at very high frequencies. From this work has come a very much fuller understanding of the conduction of electric waves through hollow guides, as well as the development of tubes for the production of microwave radio energy at high power levels. These two advances provide the basic elements of a linear accelerator.

In one form this device may employ a hollow tube energized by a very high frequency oscillator. Since even the very high power levels available are insufficient for continuous operation, the radio frequency power is supplied on a pulse cycle. Electrons are injected into one end of this wave guide so as to stay in phase with the phase velocity in the guide and are accelerated thereby to high energies. To adjust the phase velocity in the guide to the increasing velocity of the particle during acceleration, the accelerating tube is generally built as a series of tuned cavities. The electric constants of these cavities permit a satisfactory choice of traveling phase velocity so that electrons or heavy particles may be injected and successfully accelerated as they traverse the succession of cavities on their straight path down the axis of the wave guide.

The principal wave-guide accelerators sprang up almost simultaneously in a great many laboratories at the end of the war as a rather obvious application of radar technique. Although quite a number of linear accelerators are now being explored in this country, work has not gone far enough to permit a real evaluation of the advantages or disadvantages of the method.

With such devices the fundamentals of nuclear reactions are receiving intensive study by many of the ablest investigators. Phenomena, which before were observable only in the cosmic rays, may now be produced and studied in the laboratory. Some of the observations have revealed new and complex reactions which pose riddles as yet unsolved, and which will require for full understanding much more research and perhaps the development of new instruments and methods for studying them.

With such research, our knowledge of nuclear phenomena is certain to expand rapidly, and to throw new light on the technological developments which must precede the economic production of industrial power from atomic energy.

Policies. Because of the terrible potentialities for destruction inherent in the use of atomic energy in war, considerations of national security bind research and technological development indissolubly to national policies, both domestic and in the United Nations. For this reason the advances in formulation of policies play a dominant role in all atomic energy developments, and therefore the technical report of the Lillienthal Committee and the Baruch report to the United Nations should be read as a supplement to this article. See ATOMIC ENERGY, PROPOSALS AND REPORTS ON.

HARRY A. WINNE and L. A. HAWKINS.

ATOMIC ENERGY, Proposals and Reports on. The atomic bomb that destroyed Hiroshima in September, 1945 caused not only destruction unparalleled in the history of mankind, but the most fateful problem ever posed. All nations realized that the hoped-for durable peace and the possible survival of civilization depended on finding a suitable and acceptable control for atomic energy.

In recognition of the devastating nature of the new weapon, the original three joint owners of atomic knowledge, the United States, Great Britain, and Canada formulated an expedient plan in Washington during November, 1945. It was decided that the "know how" of atomic bomb manufacture would temporarily remain with the three originators, but would be shared with other nations after effective international controls could be

devised. The plan recommended that a special commission be established within the United Nations to manage the controls, outlaw the atomic bomb as a weapon, and insure the use of atomic energy only for peaceful purposes. The commission would have the authority to inspect all countries to protect complying states against violations and evasions of the agreement. In addition to its duties of safeguarding and inspection, the commission would sponsor the exchange of scientific information between the various nations and would recommend any measures necessary to restrict atomic energy to peaceful use. In concluding their statement, the three signators expressed the hope that the proposed free exchange of knowledge would be adopted by all nations, "thereby creating an atmosphere of reciprocal confidence."

Creation of the United Nations Commission on Atomic Energy. A month after the Washington Conference closed, the Foreign Ministers of the Union of Soviet Socialist Republics, the United Kingdom, and the United States met at Moscow and agreed on a definite proposal for the establishment by the United Nations of a commission on atomic energy and related matters. The designated purpose of the commission was restricted to an inquiry into the problems raised by the discovery of atomic energy and the making of recommendations.

Since the Charter of the United Nations furnished no means for dealing with the control of atomic energy, the members of the Moscow Conference instituted their own procedure to cope with the problem. They invited Canada (who shared in the development of atomic energy) and the other permanent members of the United Nations Security Council, France and China, to sponsor a resolution at the first session of the General Assembly, calling upon the Assembly to create the United Nations Atomic Energy Commission. The resolution drafted at Moscow was added to General Assembly agenda on January 4, 1946 and approved with no dissenting votes on January 24. Following is the text of the Assembly Resolution establishing the Commission on Atomic Energy.

RESOLVED by the General Assembly of the United Nations to establish a Commission, with the composition and competence set out hereunder, to deal with the problems raised by the discovery of atomic energy and other related matters.

1. Establishment of the Commission

A Commission is hereby established by the General Assembly with the terms of reference set out under section 5 below.

2. Relations of the Commission with the Organs of the United Nations

(a) The Commission shall submit its reports and recommendations to the Security Council, and such reports and recommendations shall be made public unless the Security Council, in the interest of peace and security, otherwise directs. In the appropriate cases the Security Council should transmit these reports to the General Assembly and the Members of the United Nations, as well as to the Economic and Social Council and other organs within the framework of the United Nations.

(b) In view of the Security Council's primary responsibility under the Charter of the United Nations for the maintenance of international peace and security, the Security Council shall issue directions to the Commission in matters affecting security. On these matters the Commission shall be accountable for its work to the Security Council.

3. Composition of the Commission

The Commission shall be composed of one representative from each of those States represented on the Security Council, and Canada when that State is not a member of the Security Council. Each representative on the Commission may have such assistance as he may desire.

4. Rules of procedure

The Commission shall have whatever staff it may deem necessary, and shall make recommendations for its rules of procedure to the Security Council, which shall approve them as a procedural matter.

5. Terms of reference of the Commission

The Commission shall proceed with the utmost dispatch and inquire into all phases of the problem, and make such recommendations from time to time with respect to them as it finds possible. In particular, the Commission shall make specific proposals:

(a) for extending between all nations the exchange of basic scientific information for peaceful ends;

(b) for control of atomic energy to the extent necessary to insure its use only for peaceful purposes;

(c) for the elimination from national armaments of atomic weapons and of all other major weapons adaptable to mass destruction;

(d) for effective safeguards by way of inspection and other means to protect complying States against the hazards of violations and evasions.

The work of the Commission should proceed by separate stages the successful completion of each of which will develop the necessary confidence of the world before the next stage is undertaken.

The Commission shall not infringe upon the responsibilities of any organ of the United Nations, but should present recommendations for the consideration of those organs in the performance of their tasks under the terms of the United Nations Charter.

The Lilienthal Report. On January 7, 1946, Secretary of State James F. Byrnes set up a State Department Committee on Atomic Energy, headed by Dean Acheson, Under Secretary of State. The other members of the Committee were Dr. Vannever Bush and Dr. James B. Conant of the Office of Scientific Research and Development, Major General Leslie R. Groves, head of the Manhattan District Project, the organization which produced the bomb, and Mr. John J. McCloy, former Assistant Secretary of War.

The Committee appointed on January 23 a Board of Consultants with the following members:

Mr. David E. Lilienthal, Chairman of the Tennessee Valley Authority, who acted as chairman of the consulting board. Mr. Chester I. Barnard, President of the New Jersey Bell Telephone Company. Dr. J. Robert Oppenheimer, of the California Institute of Technology and the University of California. Dr. Charles Allen Thomas, Vice-President and Technical Director, Monsanto Chemical Company. Mr. Harry A. Winne, Vice-President in Charge of Engineering Policy, General Electric Company.

The report of the Board of Consultants was published on March 16 by the State Department, with an introduction by Secretary of State Byrnes stating that the document was a "suitable starting point for the informed public discussion which is one of the essential factors in developing sound policy. The document is being made public not as a statement of policy but solely as a basis for such discussion."

The more important recommendations of the "Lilienthal Report" centered on the proposals that an Atomic Development Authority be established to control exclusively the world's stock of uranium and thorium, as well as all activities in relation to their radioactive properties. The report closed with an analysis of the procedures whereby the "present American advantage" might be retained while other nations carried on research to solve related scientific and industrial problems.

Following are excerpts from the "Lilienthal Report" which form the underlying basis of the document:

Section I: Background of the Problem

This report is a preliminary study of the international control of atomic energy. It has been prepared to contribute to the clarification of the position of the U.S. Representative on the United Nations Commission on atomic energy set up by resolution of the United Nations General Assembly to inquire into all phases of this question.

Here follow discussions on the commitment for international control, early ideas on safeguards, the technical problem of inspection, and human factors of inspection.

Section II: Principal Considerations in Developing a System of Safeguards

At the outset of our inquiry we were preoccupied with some way of making an inspection system provide security. This is a preoccupation that is apparently common to most people who have seriously tried to find some answer to the extraordinarily difficult problem presented by the atomic bomb. But as day after day we proceeded with our study of the facts concerning atomic energy, and reflected upon their significance, we were inescapably driven to two conclusions: (a) the facts preclude any reasonable reliance upon inspection as the primary safeguard against violations of conventions prohibiting atomic weapons, yet leaving the exploitation of atomic energy in national hands; (b) the facts suggest quite clearly a reasonable and workable system that may provide security, and even beyond security, foster beneficial and humanitarian uses of atomic energy.

What Should be the Characteristics of an Effective System of Safeguards:

It may be helpful to summarize the characteristics that are desirable and indeed essential to an effective system of safeguards; in other words, the criteria for any adequate plan for security.

a. Such a plan must reduce to manageable proportions the problem of enforcement of an international policy against atomic warfare.

b. It must be a plan that provides unambiguous and reliable danger signals if a nation takes steps that do or may indicate the beginning of atomic warfare. Those danger signals must flash early enough to leave time adequate to permit other nations—alone or in concert—to take appropriate action.

c. The plan must be one that if carried out will provide security; but such that if it fails or the whole international situation collapses, any nation such as the United States will still be in a relatively secure position, compared to any other nation.

d. To be genuinely effective for security, the plan must be one that is not wholly negative, suppressive, and police-like. We are not dealing simply with a military or scientific problem but with a problem in statecraft and the ways of the human spirit. Therefore the plan must be one that will tend to develop the beneficial possibilities of atomic energy and encourage the growth of fundamental knowledge, stirring the constructive and imaginative impulses of men rather than merely concentrating on the defensive and negative. It should, in short, be a plan that looks to the promise of man's future well-being as well as to his security.

e. The plan must be able to cope with new dangers that may appear in the further development of this relatively new field. In an organizational sense therefore the plan must have flexibility and be readily capable of extension or contraction.

f. The plan must involve international action and minimize rivalry between nations in the dangerous aspects of atomic development.

The facts we have come to think essential, and the elements of our thinking as we moved toward the plan we herein recommend, are set out in this section, in the form of the considerations that are relevant to an effective program for security, and that have led us to devise what we believe is an adequate plan.

Chapter 1, "The Problem Has Definable Boundaries," defines atomic energy as the "energy that results from rearrangements in the structure of atomic nuclei of elements." The nature of the forces which hold such nuclei together and account for their stability is not adequately understood, but enough is known about their behavior, not only to make it certain that the energy of an atomic bomb or an atomic power plant comes from the work done by these forces when the structure of atomic nuclei is rearranged, but also to explain one major fact of decisive importance: Only in reactions of very light nuclei, and in reactions of the very heaviest, has there ever been, to the best of our knowledge, any large-scale release of atomic energy. The reasons for this can be given in somewhat oversimplified form.

The Committee concludes that:

Because the constituent raw materials of atomic energy can be limited to uranium and thorium, the control problem is further narrowed by the geological conditions under which uranium and thorium are found, and the fact that at present those elements have only a restricted commercial significance. Although they are distributed with relative abundance throughout the world, and although it is clear that many sources beyond the known supplies will be discovered, it is apparently the view of the authorities that these elements occur in high concentrations only under very special geologic conditions. This would seem to mean that the areas which need to be surveyed, to which access must be had, and which would ultimately have to be brought under control, are relatively limited.

The other chapters of Section II discuss the adequacy of present scientific knowledge, constructive applications of atomic energy, the elimination of international rivalry, and "Safe" and "Dangerous" activities. The Committee in a summary states that:

1. If nations or their citizens carry on intrinsically dangerous activities it seems to us that the chances for safeguarding the future are hopeless.

2. If an international agency is given responsibility for the dangerous activities, leaving the non-dangerous open to nations and their citizens and if the international agency is given and carries forward *affirmative development responsibility*, furthering among other things the beneficial uses of atomic energy and enabling itself to comprehend and therefore detect the misuse of atomic energy, there is good prospect of security.

Section III: Security Through International Cooperative Development

In the preceding sections of this report we have outlined the course of our thinking in an endeavor to find a solution to the problems thrust upon the nations of the world by the development of the atomic bomb—the problem of how to obtain security against atomic warfare, and relief from the terrible fear which can do so much to engender the very thing feared.

As a result of our thinking and discussions we have concluded that it would be unrealistic to place reliance on a simple agreement among nations to outlaw the use of atomic weapons in war We have concluded that an attempt to give body to such a system of agreements through international inspection holds no promise of adequate security.

And so we have turned from mere policing and inspection by an international authority to a program of affirmative action, of aggressive development by such a body This plan we believe holds hope for the solution of the problem of the atomic bomb. We are even sustained by the hope that it may contain seeds which will in time grow into that cooperation between nations which may bring an end to all war.

The program we propose will undoubtedly arouse skepticism when it is first considered. It did among us, but thought and discussion have converted us

It may seem too idealistic. It seems time we endeavor to bring some of our expressed ideals into being.

It may seem too radical, too advanced, too much beyond human experience. All these terms apply with peculiar fitness to the atomic bomb.

In considering the plan, as inevitable doubts arise as to its acceptability, one should ask oneself "What are the alternatives?" We have, and we find no tolerable answer

The following pages contain first a brief summary of the plan we recommend, and then an expansion going into some detail.

Summary of Proposed Plan—The proposal contemplates an international agency conducting all intrinsically dangerous operations in the nuclear field, with individual nations and their citizens free to conduct, under license and a minimum of inspection, all non-dangerous, or safe, operations.

The international agency might take any one of several forms, such as a UNO Commission, or an international corporation or authority. We shall refer to it as Atomic Development Authority. It must have authority to own and lease property, and to carry on mining, manufacturing, research, licensing, inspecting, selling, or any other necessary operations.

This chapter is not an attempt to write a corporate charter for such an international agency. It is the aim, rather, to show that such a charter can be written in workable terms, and that the nature of the organization and its functions will have decisive consequences for world security. We are satisfied that the differences between national and international operations can be exploited to make the problem of atomic energy manageable This idea, we think, can become as familiar as the fact that the differences between individual enterprise and corporate enterprise have important consequences in the conduct of business.

If we are to do anything constructive in relation to atomic energy it must inevitably be novel and immensely difficult. We think that the weeks we have spent in analysis of the problem have made it appear somewhat less difficult and somewhat less novel. A succession of such processes will be necessary, each building on the preceding analysis, before even the major ramifications of the problem can be understood and the major questions partially answered. What is chiefly important now is to describe the right course of action in terms sufficiently practical and valid to show that the further exploration is worthwhile

The proposal contemplates an international agency with exclusive jurisdiction to conduct all intrinsically dangerous operations in the field. This means all activities relating to raw materials, the construction and operation of

production plants, and the conduct of research in explosives. The large field of non-dangerous and relatively non-dangerous activities would be left in national hands. These would consist of all activities in the field of research (except on explosives) and the construction and operation of non-dangerous power-producing piles. National activities in these fields would be subject to moderate controls by the international agency, exercised through licensing, rules and regulations, collaboration on design, and the like. The international agency would also maintain inspection facilities to assure that illicit operations were not occurring, primarily in the exploitation of raw materials. It would be a further function of the Atomic Development Authority continually to reexamine the boundary between dangerous and non-dangerous activities. For it must be recognised that although the field is subject to reasonable division, the dividing line is not sharp and may shift from time to time in either direction.

The development agency itself would be truly international in character. Its staff would be recruited on an international basis. Its functions would be such as to attract a caliber of personnel comparable to our own activities in raw materials during the war and our own primary production and experimental work. It would be set up as one of the subsidiary agencies of the United Nations, but it would have to be created by a convention or charter establishing its policies, functions, and authority in comprehensive terms.

Whatever the formal organization, its integration with national structure would of course be one of the major problems Measures to assure the proper degree of accountability to the United Nations and to individual nations, measures to assure that individual nations would have ample opportunity to be informed of the agency's activities, measures to make the agency responsive to the changing needs of nations—all these would have to be worked out with extraordinary care and ingenuity. But certainly our experience with business and government institutions, national and international, would afford a wealth of guidance in the development of such measures

In the actual conduct of its operations the development organization would at all times be governed by a dual purpose, the promotion of the beneficial use of atomic energy and the maintenance of security. We believe that much can be done in a convention or charter to make these purposes concrete and explicit, to draw the line between the dangerous and the non-dangerous, to establish the principles determining the location of stockpiles and plants so that a strategic balance may be maintained among nations, to establish fair and equitable financial policies so that the contributions of nations to, and their receipt of benefits from, the organization will be justly apportioned The most careful and ingenious definitions will be required in order to accomplish these purposes.

In what follows we shall attempt to develop and expand the foregoing statement of essentials.

We can best visualize the Atomic Development Authority in terms of the answer to these concrete questions

(1) What will be the functions of the agency; what are the things that it will do!

(2) What kind of organization is necessary to carry out these functions!

(3) How will the organization be related to the United Nations and the individual nations that it will represent!

(4) What policies will guide the agency in determining its manifold actions!

The two chapters in this section are devoted to the (1) proprietary and regulatory functions of Atomic Development Authority in the field of raw materials, production plants, research activities, licensing activities, and inspection activities, and (2) organization and policies of Atomic Development Authority, in which the Committee sets forth the basic considerations for an Atomic Development Authority:

The fundamentals governing the Atomic Development Authority must of course be those which have been so well stated in the resolution of January 18, 1946 setting up the United Nations Atomic Energy Commission, that is, the strengthening of security and the promotion of the beneficial use of atomic energy In our report we have adopted as the first principle in the accomplishment of these fundamental objectives the proposition that intrinsically dangerous activities in the field must not be left open to national rivalry but must be placed in truly international hands To establish the boundaries between international and national action, we have grasped the fortunate circumstance that a dividing line can be drawn between dangerous and non-dangerous activities. We have emphasized that not the least in the fortunate circumstances that we have observed is the fact that the field of non-dangerous activities is so challenging that it provides an opportunity to avoid such centralization of authority as might make the price of security seem too high In this connection it is important that a purposeful effort should be made to keep as broad and diversified as possible the field of activities which is left in national and private hands. Every effort must be made to avoid centralizing exclusively in the Authority any more activities than are essential for purposes of security.

Section IV: The Transition for International Control

The Committee summarizes this section as follows:

In this section we have been discussing the problem of transition to international control as it affects the security of the United States. During this transition the United States' present position of monopoly may be lost somewhat more rapidly than would be the case without international action. But without such action the monopoly would in time disappear in any event. Should the worst happen and, during the transition period, the entire effort collapse, the United States will at all times be in a favorable position with regard to atomic weapons. This favorable position will depend upon material things; less and less will it rest upon keeping nations and individuals ignorant.

When fully in operation the plan herein proposed can provide a great measure of security against surprise attack. It can do much more than that. It can create deterrents to the initiation of schemes of aggression, and it can establish patterns of cooperation among nations, the extension of which may even contribute to the solution of the problem of war itself. When the plan is in full operation there will no longer be secrets about atomic energy. We believe that this is the firmest basis of security; for in the long term there can be no international control and no international cooperation which does not presuppose an international community of knowledge.

The Baruch Proposals for an International Atomic Development Authority. Bernard M. Baruch, who was appointed American representative to the United Nations Commission by President Harry S. Truman on March 18, submitted the United States' proposals for the control of atomic energy to the United Nations on June 14. Broadly patterned on the "Lilienthal Report," Mr. Baruch widened the base of the International Atomic Development Authority to include all forms of control. The "Lilienthal Report" restricted the authority to international ownership. In the design of the Baruch proposals the Authority would be empowered to survey the world's supply of uranium and thorium, to exercise complete monopoly of the production of fissionable materials, and to control research in the field of atomic explosives by licensing other authorities for the exploitation of peaceful activities. The power of international inspection would demand free access to any party of any country.

After an urgent plea for a peaceful world, Mr. Baruch said that the creation of an effective system of control and the renunciation of the atomic bomb as a weapon would be followed by an end to the manufacture of atomic bombs, disposal of existing bombs and delivery to the Authority of full information regarding the "know how" for the production of atomic energy.

The following measures were submitted by Mr. Baruch as representing the fundamental features of the United States plan:

1. General. The Authority should set up a thorough plan for control of the field of atomic energy, through various forms of ownership, dominion, licenses, operation, inspection, research, and management by competent personnel. After this is provided for, there should be as little interference as may be with the economic plans and the present private, corporate, and state relationships in the several countries involved.

2. Raw Materials The Authority should have as one of its earliest purposes to obtain and maintain complete and accurate information on world supplies of uranium and thorium and to bring them under its dominion. The precise pattern of control for various types of deposits of such materials will have to depend upon the geological, mining, refining, and economic facts involved in different situations

The Authority should conduct continuous surveys so that it will have the most complete knowledge of the world geology of uranium and thorium. Only after all current information on world sources of uranium and thorium is known to us all can equitable plans be made for their production, refining, and distribution

3. Primary Production Plants. The Authority should exercise complete managerial control of the production of fissionable materials. This means that it should control and operate all plants producing fissionable materials in dangerous quantities and must own and control the product of these plants.

4. Atomic Explosives. The Authority should be given sole and exclusive right to conduct research in the field of atomic explosives. Research activities in the field of atomic explosives are essential in order that the Authority may keep in the forefront of knowledge in the field of atomic energy and fulfil the objective of preventing illicit manufacture of bombs. Only by maintaining its position as the best-informed agency will the Authority be able to determine the line between intrinsically dangerous and non-dangerous activities.

5. Strategic Distribution of Activities and Materials. The activities entrusted exclusively to the Authority because they are intrinsically dangerous to security should be distributed throughout the world. Similarly, stockpiles of raw materials and fissionable materials should not be centralised.

6. Non-Dangerous Activities. A function of the Authority should be promotion of the peacetime benefits of atomic energy.

Atomic research (except in explosives), the use of research reactors, the production of radioactive tracers by means of non-dangerous reactors, the use of such tracers, and to some extent the production of power should be open to nations and their citizens under reasonable licensing arrangements from the Authority. Denatured materials, whose use we know also requires suitable safeguards, should be furnished for such purposes by the Authority under lease or other arrangement. Denaturing seems to have been overestimated by the public as a safety measure.

7. Definition of Dangerous and Non-Dangerous Activities. Although a reasonable dividing line can be drawn between dangerous and non-dangerous activities, it is not hard and fast. Provision should, therefore, be made to assure constant reexamination of the questions and to permit revision of the dividing line as changing conditions and new discoveries may require

8. Operations of Dangerous Activities. Any plant dealing with uranium or thorium after it once reaches the potential of dangerous use must be not only subject to the most rigorous and competent inspection by the Authority, but its actual operation shall be under the management, supervision, and control of the Authority.

9. Inspection. By assigning intrinsically dangerous activities exclusively to the Authority, the difficulties of inspection are reduced. If the Authority is the only agency which may lawfully conduct dangerous activities, then visible operation by others than the Authority will constitute an unambiguous danger signal. Inspection will also occur in connection with the licensing functions of the Authority.

10. Freedom of Access. Adequate ingress and egress for all qualified representatives of the Authority must be assured. Many of the inspection activities of the Authority should grow out of, and be incidental to, its other functions. Important measures of inspection will be associated with the tight control of raw materials, for this is a keystone of the plan. The continuing activities of prospecting, survey, and research in relation to raw materials will be designed not only to serve the affirmative development functions of the Authority but also to assure that no surreptitious operations are conducted in the raw-materials field by nations or their citizens.

11. Personnel. The personnel of the Authority should be recruited on a basis of proven competence but also so far as possible on an international basis.

12. Progress by Stages. A primary step in the creation of the system of control is the setting forth, in comprehensive terms, of the functions, responsibilities, powers, and limitations of the Authority. Once a charter for the Authority has been adopted, the Authority and the system of control for which it will be responsible will require time to become fully organized and effective. The plan of control will, therefore, have to come into effect in successive stages. These should be specifically fixed in the charter or means should be otherwise set forth in the charter for transitions from one stage to another, as contemplated in the resolution of the United Nations Assembly which created this Commission.

13. Disclosures. In the deliberations of the United Nations Commission on Atomic Energy, the United States is prepared to make available the information essential to a reasonable understanding of the proposals which it advocates. Further disclosures must be dependent, in the interests of all, upon the effective ratification of the treaty. When the Authority is actually created, the United States will join the other nations in making available the further information essential to that organization for the performance of its functions. As the successive stages of international control are reached, the United States will be prepared to yield, to the extent required by each stage, national control of activities in this field to the Authority.

14. International Control. There will be questions about the extent of control to be allowed to national bodies, when the Authority is established. Purely national authorities for control and development of atomic energy should to the extent necessary for the effective operation of the Authority be subordinate to it. This is neither an endorsement nor a disapproval of the creation of national authorities. The Commission should evolve a clear demarcation of the scope of duties and responsibilities of such national authorities.

The U.S.S.R. Proposals. With the exception of the Union of Soviet Socialist Republics and Poland, the Baruch plan was accepted by all negotiating nations. The proposals of the Soviet representative, Mr. Andrei A. Gromyko, which were presented at the second session of the Commission on June 19, differed fundamentally from that of the United States. While the Baruch plan provided for disposal activities only after effective safeguards had been established, the Soviet proposals demanded the immediate outlawing of the atomic bomb and the destruction of all stocks of atomic energy weapons within a period of three months.

Rather than establish an Authority with the power to investigate atomic activities, the Soviet plan put the outlawing of atomic weapons on a moral plane whereon each nation would be entrusted to punish its own citizens for infractions of an outlaw treaty.

The pertinent points of the Soviet plan, as listed in the United Nations' Secretary-General's report are as follows:

In order to carry out the decision of the General Assembly of January 24, one of the first measures should be a study of the question of the conclusion of an international agreement to forbid the production and use of weapons based upon the use of atomic energy for the purposes of mass destruction.

Six "essentials" cited

The essentials of such an agreement are as follows:

1. The production and use of a weapon based upon the use of atomic energy shall be forbidden.
2. Within a period of three months from the entry into force of the agreement all stocks of atomic energy weapons shall be destroyed.
3. Any violation of the agreement shall be regarded as a serious threat against humanity.
4. Violation of the terms of the agreement shall be severely punished under the domestic legislation of the contracting parties.
5. The agreement shall be of indefinite duration, coming into force after approval by the Security Council, and after ratification by all the permanent members of the Security Council.
6. All States (whether Members or not of the United Nations) shall be obliged to fulfil all provisions of the agreement.

In pursuit of the aims indicated in the decision of the General Assembly 'to proceed with the utmost despatch and enquire into all phases of the problem,' the representative of the Union of Soviet Socialist Republics proposed to establish two committees. Each committee would be composed of one representative of each State represented on the Commission. Each representative could have advisers. The Rules of Procedure of the committees should be drawn up by the Atomic Energy Commission.

Would prepare recommendations

The first committee would be for the exchange of scientific information. Among the tasks of this committee would be that of elaborating recommendations concerning practical measures for the organization of exchange of information: (1) concerning the contents of scientific discoveries connected with the splitting of the atom and other discoveries connected with the obtaining and use of atomic energy; (2) concerning the technology and the organization of technological processes for obtaining and using atomic energy; (3) concerning the organization and method of industrial production of atomic energy and the use of such energy; (4) concerning the forms, sources and location of raw materials necessary for obtaining atomic energy.

The task of the second committee would be to prepare recommendations on the following subjects concerning the prevention of the use of atomic energy for the harm of humanity:

1. The preparation of a draft international agreement to outlaw weapons based upon the use of atomic energy and to forbid the production and use of such weapons and all similar forms of weapons destined for mass destruction.
2. The elaboration and creation of methods to forbid the production of weapons based upon the use of atomic energy and to prevent the use of atomic weapons and all other similar weapons of mass destruction.
3. Measures, systems and organization of control in the use of atomic energy to ensure the observance of the

above-mentioned conditions in the international agreement to outlaw atomic weapons.
4. The elaboration of measures for application against the unlawful use of atomic energy.

On December 30 the United Nations Atomic Energy Commission approved a plan for international atomic control that exactly conformed with the proposal submitted by Mr. Baruch to the United Nations on June 14. The Soviet Union and Poland abstained from voting.

As approved, the plan requested the creation of an international Authority or agency, drawn up by multilateral treaties, to outlaw the production and use of atomic weapons, with no veto by any of the United Nations on the operations of the Authority or punishment of violators. The Authority would have unrestricted control of atomic research for destructive purposes and its agents would have the right to make inspections of all those nations subscribing to the agreement.

AUSTRALIA. A self-governing dominion of the British Commonwealth of Nations. Capital, Canberra. Australia proper includes 6 states and two territories, with a total area of 2,974,581 square miles and an estimated population (March 31, 1945) of 7,364,841. The Commonwealth of Australia also has administrative control of Papua, Norfolk Island, the Ashmore and Cartier Islands, the uninhabited Australian Antarctic Territory and Nauru (mandated to the British Empire). The territory of New Guinea, comprising northeast New Guinea, the Bismarck Archipelago and part of the Solomon Islands, is administered by Australia under mandate.

Government. Executive power is vested in a Governor-General appointed by the Crown and in a ministry responsible to the Federal Parliament. There is a Senate of 36 members (6 from each state) elected for 6 years and renewed by half every three years, and a House of Representatives of 75 members apportioned among the states on a population basis and elected for three years. Governor-General, the Duke of Gloucester (assumed office early in 1945 and recalled to Britain for official duties early in 1947). Prime Minister Joseph B. Chifley, chosen by the Labor Party to succeed John Curtin, who died in 1945, and continued in office as a result of the general election of September 28, 1946.

Events, 1946. Australia's first full year of peace was marked by the return of the Labor Government to office as a result of the general election, vigorous and extensive participation by the country's representatives in international conferences, and progress towards postwar reconstruction without encountering some of the difficulties met by other victorious countries.

On September 28 more than 4,500,000 Australian voters went to the polls to elect the Commonwealth's 18th Federal Parliament. The completion of the general election count early in October showed that Labor had secured 43 seats, Opposition parties 30 and Independent Labor two. The composition of the House when the Government went to the polls was: Labor 49 seats, combined Opposition 25, and Independents one. In the new Senate Labor had 33 seats and the combined Opposition three. A roundup of election figures from all states showed that Labor polled 53 percent of the votes cast for the House of Representatives and the Opposition 44 percent.

J. B. Chifley was unanimously re-elected leader of the Parliamentary Labor Party on October 31 by the party caucus. After the caucus had elected the members of the Ministry, Chifley designated himself Prime Minister and Treasurer. Other important portfolios were assigned as follows: Minister for External Affairs and Attorney-General, H. V. Evatt; Labor and National Service, E. J. Holloway, and Information and Immigration, A. A. Calwell.

A referendum to decide whether the Constitution should be altered to transfer from the states to the Commonwealth the power to direct social services, marketing control and conditions in industrial employment resulted in the carrying of the first and the rejection of the other two. As a result the Commonwealth Government was given the administration of maternity allowances; widows' pensions; child allowances; unemployment, sickness and hospital benefits; medical and dental services (but not so as to authorize any form of civil conscription); benefits to students, and family allowances. Commenting on the election results Chifley said that the verdict of the people was a clear mandate for the Government to carry on its policies laid down in the past.

Australians Abroad. The representatives of Australia played a conspicuous part in the chief official international conferences of the year, including the Peace Conference in Paris, the International Trade Conference in London and the meetings of the United Nations Security Council and General Assembly in New York. Australia's term as a member of the Security Council runs to 1948.

Minister of External Affairs Herbert V. Evatt was an active participant in the deliberations of the Paris Peace Conference until he handed over the leadership of the Australian delegation to John A. Beasley, Resident Minister in London, in order to return to Australia to campaign in the federal election of September 28. On the opening day of the Peace Conference, July 29, Evatt fostered a small-country revolt against the two-thirds vote rule in committee and plenary decisions and demanded a simple majority rule, but the weight of the Big Four opposition to the small-country program was too great to be overcome.

Australia's sponsorship of a good proportion of the amendments put before the conference brought forth the observation from Soviet Vice Foreign Minister Andrei Vishinsky that although 35 percent of the amendments came from Australia that country was farthest removed from Europe (with which the Peace Conference was dealing at the Paris sessions). Beasley then emphatically reminded the delegates that the blood of Australians had been shed in two European wars and observed that Australia did not intend to be intimidated.

At the end of August the Russian delegation repeatedly attacked the Australian delegation throughout two days of debate for having the temerity to suggest changes in the Big Four drafts of the reparation clauses of the treaties. The right of Australia to propose amendments without undergoing attack was defended by American representative Willard Thorp, but the Australians lost their campaign to have their reparations amendment incorporated in the Rumanian and Italian draft treaties.

At the Paris Peace Conference the tone of Evatt's responses to Russian proposals was at variance with that taken by him earlier in the year. Speaking in the Australian Parliament early in March he defended the Soviet Union's foreign policy and advised against giving up the wartime concept of the Soviet Union as a "trusted, peace-loving ally." Evatt's consistent policy, however, was the defense of the rights and privileges of small

nations, a line from which he did not depart wherever the course took him in the direction of temporary alliances.

Activity in the Security Council. Australia again took a position opposite to that of the Soviet *Bloc* in the Security Council session at Lake Success, New York, on September 9, when Australian representative Paul Hasluck supported American skepticism about Ukrainian charges that the Greek Government threatened international peace and security. The Australian called the Ukrainian charges "frivolous" and suggested that they be dismissed from the council agenda. Hasluck was appointed to the Security Council position when Lieut. Col. William R. Hodgson, Australian Ambassador to France, gave up his Security Council post in April to return to Paris because of illness in his family.

At a session of the Security Council in October Hasluck led a revolt of small nations against the veto in a style which was not inferior to Evatt's. He reviewed the use of the veto, saying that it had been invoked 10 times, always by the Soviet Union, and that Soviet Russia had forgotten its representative capacity and its obligation under the Charter to act on behalf of all other members. The debate on the Australian resolution asking the Big Five to refrain from using the veto except in cases dealing with action in respect to "threats to the peace, breaches of the peace and acts of aggression" gave Hasluck the chance to say further that the use of the veto had undermined confidence in the Security Council. A very mild version of the Australian resolution was later adopted by the Political and Security Committee.

Rejection of Bretton Woods. A long effort by Prime Minister Chifley and other Cabinet leaders to get Australia into the Bretton Woods Institutions, the International Monetary Fund and the International Bank for Reconstruction and Development, ended in failure, or at least in postponement, in December. The discussion had been protracted. In a Cabinet meeting in the preceding January a minority persistently opposed ratification of the Bretton Woods Agreements on the ground that the International Monetary Fund would rapidly pass under the control of the dollar creditor nations. It might, they argued, be used to deprive the signatories of control of their economies and force them to reduce tariffs solely in the interests of the dollar creditor nations.

In November, after further opposition from a minority, the Cabinet decided to recommend adherence to the Bretton Woods Agreements. Early in December the Parliamentary Labor Party, by a vote of 29 to 23, declined to endorse the recommendation and referred it to the Party's federal conference, the supreme authority on policy. As the conference was not to meet until 1947 the Government could not introduce in the existing Parliamentary session legislation to ratify the Agreements and Australia could not become a member of the Fund or Bank by December 31, 1946, the last date by which she was assured of membership.

Prime Minister Chifley and Minister of External Affairs Evatt had stood steadily for joining the Fund and Bank. In commenting on the Labor Party's refusal, Chifley said that one consequence was that Australia might be excluded from the International Trade Organization to be established in 1947, as some countries, including the United Kingdom, held that membership in the Fund and Bank should be a prerequisite.

Relations with the United States. Except for such questions as these and Australian disapproval of American Pacific island claims, in all of which the rights of small nations were involved, relations between Australia and the United States were cordial in 1946. The signing of the final lend-lease and reciprocal lend-lease settlements between the two countries took place in June. Under the terms of settlement Australia was scheduled to pay $28,000,000 to the United States for machine tools, equipment and other parts used for peace-time purposes in Australia. Otherwise the slate was wiped clean. Prime Minister Chifley announced that the United States would make available $7,000,000 of the amount to be paid for United States Government buildings in Australia and for other projects that would improve cultural relations between the two countries.

On July 9 it was announced simultaneously in Canberra and Washington that the two governments had completed arrangements for raising their respective legations to embassies. Mr. Norman Makin, Minister of the Navy, who was made first ambassador from Australia to the United States, took his place as leader of the Australian delegation to the United Nations General Assembly in New York in November. The American Ambassador, Robert L. Butler, presented his credentials to the Governor-General of Australia.

The Australian loan floated in the United States in August was the first foreign financing through regular investment channels in the United States since the end of the war, other than operations for the Canadian Government. The $28,000,000 offering was put on the market by a syndicate of 61 underwriting houses. The loan, like the one which followed it in December, was for the purpose of gradually refunding at a lower rate of interest the Commonwealth's $200,000,000 of dollar obligations.

Empire Relations. Leading Australians showed an increasing consciousness in 1946 of the need of closer Empire relations, especially in defense. One of the clearest expressions of this feeling was given in January by the Secretary of the Australian Council of Trade Unions, A. E. Monk, who had just returned to Australia from the sessions of the World Trade Union Congress and International Labor Organization in Paris.

Monk said that nothing uncomplimentary to the United States was meant in the observation that the experiences of war served to make Australians more conscious than ever before of how British they were, and more convinced of the contribution a closely integrated Commonwealth could make to the peace and prosperity of the world. He regretted, however, that there was imperfect comprehension in Britain of the strength which might be drawn from the Dominions, and too general an impression in Australia that the Dominions Office did not want to be bothered by unwelcome attentions from the Dominions. In the same month John A. Beasley, Australia's New Resident Minister in London, told reporters that Australia's awareness of the need of improved military, economic, and financial defense within the Empire could be expressed by saying, "When you are out on a limb you feel the need of the main trunk."

At the opening of Parliament in Canberra on November 6 the Governor-General, speaking in behalf of the newly-elected Labor Government, announced that the Government intended that the organization and strength of postwar defense forces should proceed on the basis of recognizing that Australia must make a larger contribution towards the defense of the British Commonwealth, a duty that could best be performed in the Pacific.

Commenting on this part of the Governor-General's speech, *The Times* (London) remarked that it was no secret that in recent years the British response to Australia's proposals for closer integration of British Commonwealth relationships had profoundly disappointed successive governments in Canberra. Little constructive interest had been shown in Australian ideas for cooperation except by New Zealand, a situation which caused former Prime Minister John Curtin to observe in 1944 that if he could not have five brothers he would have to be content with one. As a result Australia and New Zealand worked out bilateral plans for regional cooperation in the Pacific (See YEAR BOOK for 1945, pp. 54–55).

In the summer of 1946 the Commonwealth Government announced that it was in touch with other countries interested in the South Pacific to arrange the first meeting of the South Seas Regional Commission. The Commission was proposed in the "Anzac Pact" between Australia and New Zealand and one of its aims was intended to be the working out of a common policy for the welfare of the native peoples in the South Pacific.

Australian objections to giving up empire preference until concrete tariff concessions should be made by the United States provided difficulties for the Empire trade conference which preceded the international trade conference opened in London on October 15. Australia appeared to demand that the preference system be left intact, in spite of the commitments made by Britain at the Bretton Woods Conference and in the Anglo-American loan negotiations. In this attitude she had the support of New Zealand and South Africa.

Reconversion. On the whole, reconversion proceeded more smoothly than had been expected. The unemployment expected in the period failed to materialize and there was no sign of any serious industrial dislocation, although some industries met shortages of construction materials. Shortages of consumer goods were less troublesome than had been anticipated. Figures given by the Prime Minister in his financial statement on July 12 showed that the rate of demobilization had been more rapid than the early estimates had predicted.

Perhaps the greatest single barrier to the rapid expansion of industrial production was the shortage of coal. Requirements for black coal were higher in 1946 than the amount produced and the situation was not improving. Four-fifths of Australia's coal is produced in New South Wales, where industrial disputes have been frequent. In May the country was alarmed by the threat of a strike in this area, which had barely recovered from the disrupting strike of December, 1945, but at the end of the month, after concessions by the Federal Government, the strike was called off.

In July, in a fresh effort to stimulate the production of coal, the Government sponsored a bill providing for joint control of the industry by the Commonwealth and the state of New South Wales. Under the bill, which was passed in August, a control board of five members was given jurisdiction over all phases of coal mining and authorized to develop and operate new fields and to acquire and operate privately-owned mines where such action was deemed necessary.

The Arbitration Court sat for several months of 1946 hearing evidence for and against the general 40-hour working week. On October 30 Judge E. A. Drake-Brockman indicated in the court that the declaration of the broad principle of a 40-hour week was probable, but that it would be subject to special circumstances in certain industries.

Immigration Policy. The movement to encourage immigration into Australia gathered momentum slowly, partly because it was not feasible to bring in new residents until the postwar employment adjustments of Australian workers were completed. At the beginning of November announcement was made of the details of the governmental Anglo-Australian scheme under which 200 skilled building trade workers, all single men, would leave Britain for Australia on November 30. Another body of 400 building operatives was scheduled to leave for Australia early in 1947. Both parties were destined for Canberra, where they were to be employed in an extensive plan of building construction.

Although the announced policy of the Australian Government was to give preference to immigrants from Britain, negotiations were begun with a number of other European countries, including The Netherlands and the Scandinavian countries. In view of the shipping situation and other difficulties, however, it seemed doubtful whether Australia could reach its goal of 70,000 immigrants a year by 1948.

One of the most interesting aspects of the campaign to enlist British immigrants was the revival of the "Big Brother Movement" of prewar times. The plan was to send out every year 2,000 boys of 15 to 19—about 500 of them to New South Wales. Every boy who emigrated with the approval of the authorities would have the greater part of his passage paid and would find a "Big Brother" in Australia—a responsible citizen other than his employer. Both the president and chairman of the London committee, which had offices at Australia House, were former governors of Victoria.

Reduced Taxes. The announcement of the budget for 1946–47 was deferred until after the September election, but income tax reductions were announced on July 12 by Prime Minister Chifley, who was also serving as Treasurer, in his financial statement. These ranged from nearly 40 percent on the lowest incomes to 7 percent on the highest. At the same time Chifley made public a more liberal scale for old age, invalid, and widows' pensions.

On November 14, after the Labor Government was returned to power, an "anti-inflation" budget was presented. Expenditure for 1946–47 was set at $1,400,000,000, an amount about $500,000,000 lower than that of the preceding year but still $200,000,000 in excess of anticipated revenue. Sales and gasoline taxes were reduced at this time. The budget followed a measure to extend a group of anti-inflationary controls such as wage, price, and rent controls, in order that they should not lapse with the expiration of national security regulations in December.

Civil Administration in Papua. A bill for the restoration of civil administration in Papua was presented to the House of Representatives in July by E. J. Ward, Minister for Transport and External Territories. The plans, scheduled to become effective in October, provided for a single temporary administration for Papua and those parts of the mandated territory available for civil control. The indenture system of labor for the natives would be abolished, professional recruiters would be eliminated, and employers would hire labor under a license system. Weekly hours of labor would be reduced from 55 in New Guinea and 50 in Papua to 44 and the minimum age of employment would be sixteen. The plans also provided for a vigorous program of education, but this would not exclude the missionary establishments because of the general rec-

ognition of their valuable service. It was expected that nearly all of the settlements in the area would require rebuilding.

The People. Two-thirds of the people live in coastal cities and towns, the largest of which are Sydney, Melbourne, Adelaide, and Brisbane. Sydney and Melbourne between them contain more than one-third of Australia's population of 7,364,841. Elementary education in Australia is free and compulsory, with less than four percent illiteracy among the adult population. The chief religious affiliations, in the order of their numerical strength, are Church of England, Roman Catholic, Presbyterian, Methodist, and Baptist.

Production. Australia is the world's largest producer of wool and accounts for approximately 25 percent of world production. Wheat and meat are also important land products. The three are the country's chief exports.

Manufacturing accounted for about 56 percent of the net value of production in the war year 1943–44, although in prewar years primary produce usually exceeded that of the factory. In 1945–46 the country was able to meet much of the domestic requirements in clothing and textiles and to export appreciable amounts as well, although in smaller quantity than before the war. Coal and gold are the most valuable mineral products.

Foreign Trade. Australian exports reached the record figure of $703,000,000 in the financial year 1945–46. This was an increase of more than 50 percent over the last prewar year, 1938–39. An unfavorable balance of trade persisted, however, to a figure greatly in excess of that before the war. Another trend was the shift of trade away from Britain and in the direction of the United States, Canada, India and Pacific countries. In the first half of 1945–46 exports to Britain were 29 percent of all Australian exports as compared with 49 percent before the war, and Australian purchases from the United States were 32 percent of the total as against 15 percent in 1938–39.

ALZADA COMSTOCK.

AUSTRIA. A state of central Europe (see *Events* below). Area: 32,432 square miles. Population (1939): 6,650,000. Vienna, the capital, had 1,918,462 inhabitants; Graz, 210,175; Linz, 131,423. See YEAR BOOKS for 1938 and 1939 for prewar statistics.

Education. Despite shortage of teachers and books and other instructional materials, substantially 100% of the children of elementary school age in the U.S. Zone and the U.S. Vienna area are in School. 80% of the youth who normally attend secondary schools are in school. Adult education is being carried on extensively and all institutions of University rank are in operation, with crowded classrooms and laboratories.

Production. Estimated yearly production: pig iron 500,000 tons; crude steel 950,000 tons; brown coal 692,448 tons; salt 84,156 tons; oil reserve (Zisterdorf, Gaisberg, Kreusfeld and Prinzendorf, together with some smaller fields) 1,500,000 metric tons, or more than four times normal domestic consumption. Other natural resources: magnesite (produced in quantity second only to U.S.S.R.), aluminum, antimony, copper, lead, mercury, nickel, tin, zinc, ferrous alloys, coal and coke. Principal sources of energy lie in hydro-electric power, capable of annual production of 26 billion kilowatt hours. Annual production, based upon July production, approximately 4,000,000,000 kw-hr. Exportable surplus approximately 900,000,000 kw-hr. Forests covering 6.5 million acres, or nearly 40% of total land surface, yield a yearly exportable surplus of 2.7 million cubic meters of logs, pit props, pulp wood and finished wood with an annual forest drain of about 4.1 million cubic meters.

Overall industrial capacity is 28% of normal. Textile productivity, approximately 90% of prewar level, with industry operating at between 30 to 40% of existing capacity. Paper and pulp industry operates at 70 to 80% of capacity, steel and iron industry operates at only a fraction of capacity, hampered principally by short supply, and deliveries, of coking coal.

Pre-Anschluss food production was about 75% of Austrian requirements with greatest deficiency in fats and oils, of which 45% was imported. Also imported was 30% of Austria's bread-grain and 10% of meat. Self-sufficient in sugar, potatoes and dairy products, Austria had an exportable surplus in milk products and cheese. Austria's food resources today, both indigenous and imported, are scarcely sufficient to maintain ration level above 1,200 calories per person.

Foreign Trade. Foreign trade treaties have been concluded with Czechoslovakia, Poland, Italy and Switzerland, and treaty negotiations with Rumania are in progress. Licenses involving trade have been approved with 18 countries in the following order: Czechoslovakia, 33% of total imports and 29% of total exports; Switzerland, 31% of imports and 28% of exports; Italy, 9% of imports and 8% of exports; Hungary, 4.5% of imports and 4% of exports; United States 3.8% of imports and 7.3% of exports; remaining exports and imports dispersed among other countries in small amounts. Total volume of foreign trade licensed during the first six months of 1946 was 234,730,000 schillings, for the same period in 1937 actual trade amounted to 1,335,250,000 schillings. In terms of official exchange rates (for 1946, the military rate), however, the volume of trade licenses for this period in 1946 was less than 10% of the volume of actual trade during the same period in 1937.

Finance. In December 1945, Reichmark circulation was estimated between seven to ten billions ($700,000,000–$1,000,000,000). The Conversion Law enacted December 1945 required the exchange of all notes of 10 RM denomination for an equal number of Austrian schillings. The legal exchange rate is generally recognized at 10 Austrian schillings to the U.S. dollar. The black-market value of U.S. dollar declined from 150 schillings per dollar in March 1946 and to between 50 and 60 schillings in July. Foreign Exchange Law enacted in July 1946 gave National Bank of Austria the right to buy the proceeds of exports and other foreign exchange.

Government. Following the Anschluss of 12 March 1938, Austria was part of Germany until 1 November 1943. On the latter date, the Soviet Union, the United Kingdom and the United States agreed, in the Moscow Declaration, that Austria, the first free country to fall a victim to Hitlerite aggression, should be liberated from German domination. By March 1945, the European Advisory Commission had outlined arrangements for the four-power occupation of Austria by the Governments of the United States of America, the Union of the Soviet Socialist Republics and the United Kingdom and the Provisional Government of the French Republic, each power being allotted its own zone: U.S.—Oberösterreich (Upper Austria); U.S.S.R.—Niederösterreich (Lower Austria), including Vienna which is under joint occupation of all four powers; U.K.—Steiermark (Styria), Karnten (Carinthia) and Ost Tyrol (East Tyrol);

France—Tyrol and Voralberg. Agreement in the Economic Advisory Commission on control machinery was reached on July 4, 1945. (A more liberal Control Machinery Agreement was signed in Vienna on June 28, 1946.) A new Austrian Government was organized in 1945, the major political groups of which are The People's Party (Volkspartei) intimately connected with the Roman Catholic hierarchy as the old Christian Socialist group, the Socialist Party (Social Democrats), and the Communists.

Events. "Our country is formally liberated," declared Dr. Karl Gruber, Austrian Foreign Minister, to the Chicago Council on Foreign Relations, November 14, 1946, "but it is not yet free. It is occupied by a considerable number of troops and these occupation forces are rather expensive because we have to pay for them, month to month, 30 percent of our budget. . . . They have brought with them different philosophies and different ideas as to how to administer and how to run a country, and so virtually our country is cut into four pieces. . . . We have a difficult food situation. Our people for 1½ years have not had 1,200 calories, which is rather near to a starvation rate. There were many months when we were down to 800 calories. . . . It would be a very great error to think that the European peace can be established as long as there is not a free and independent Austria."

Hopes of freedom from Allied occupation, while not fulfilled during 1946, were brought closer to realization. On January 7 *de jure* recognition was accorded to the Austrian Government by the United States, Britain, France and the U.S.S.R. The regime acknowledged by the occupying Powers was the product of the elections of November 25, 1945, in which the *Volksnartei* or People's Party (VP) won 85 seats in the Assembly, the Social Democrats (SD) 76 and the Communists (KP) 4. The coalition Cabinet named in December, under Leopold Figl (VP) as Chancellor, continued in office throughout 1946, with Dr. Karl Renner (SD) completing the first year of his six-year term as President of the Republic.

Right and Left. The balance of political forces was little changed. In the face of continued cooperation between the Catholic, mildly clerical VP and the moderate, revisionist-Marxist SD, extremists of Right and Left made no notable gains. The appearance in Innsbruck in mid-January of the Hapsburg Archdukes Karl Ludwig and Rudolf, brothers of pretender Otto, led to the suppression of the monarchist *Verein Reichsbund der Oesterreicher* and to the arrest of various royalist leaders. The Archdukes were expelled on January 18 by the French authorities in the Tyrol. Another figure of the tragic past, Kurt Schuschnigg, remained in Italy and attributed his "exile" to "one of the occupying Powers"—presumably the U.S.S.R.

Nazi elements were less readily disposed of. Death came on January 29, 1946, to the mysterious Dr. Anton Rintelen, who was designated as Chancellor by the Nazi Putschists of July 1934. Returning war veterans were said to have Nazi sympathies, along with many academicians and students. "Denazification" made slow progress, with Figl protesting in June to the British and American commands over the opposition of Military Government officials to the removal of influential Nazis from public office. Numerous Nazi professors were discharged, particularly from the faculty of Graz, but reactionary students at the University of Vienna and other institutions staged pan-German demonstrations in November and provoked riotous counter-demonstrations by workers. As in Germany, however, most Nazis were in a mood of lethargy and cynicism.

On the extreme Left the Communists, although active, remained a small minority group. While adhering to the "National Front" in Parliament and Cabinet, KP spokesmen consistently condemned the Western Powers, defended the Soviet Union, asked for "unity" with the SD's and sought to capitalize upon the many grievances of Austrian workers. On September 21 the KP was forced to suspend Karl Heinz as its deputy editor on the staff of *New Austria*, a joint journal of the three parties in Vienna. Heinz, who was aide to Ernst Fischer, leading Communist and chief editorial writer on the paper, was exposed as a contributor to the Nazi press during the Hitler regime. Communist pleas for a general strike were rejected on October 17 by the National Assembly of the General Confederation of Labor. A month later an SD congress rebuffed the KP by choosing a new directorate still headed by Vice-Chancellor Adolf Schaerf who was identified with the anti-Communist party line. Communist agitation at the close of the year for new national elections was without result.

The Middle Way. Within the limits imposed by national impoverishment and alien occupation, the VP and SD leaders moved forward along the road to democratic socialism. Both groups favored nationalization of basic industries, with the Catholics, however, sponsoring a less extensive program than the Social Democrats and championing a greater measure of cooperative ownership of plants by workers. Catholic charges that the SD was aiming at "State Capitalism" were met with SD criticism of Figl's party for not being in earnest about socialization.

On June 8 Peter Krauland, Minister of Economic Planning, asserted that the VP "has tried to find a middle way between state and private economy. In the search for a new form of economic organization our leading idea was a cooperative based on the democratic principle of self-determination. The worker must become a co-owner." On July 26, Parliament unanimously passed a nationalization law, despite Soviet objections (see below). The ultimate shape of Austria's new economic order was obscured by her anomalous international position. But there could be no doubt that Catholics and SD's alike were committed to a modified version of a cooperative commonwealth in which private enterprise would be subordinated to the needs of an essentially collectivist economy.

The Hungry. Meanwhile, most Austrians were more interested in bread than in social reform. Early in April a complex diplomatic compromise averted impending famine by making it possible for UNRRA to assume responsibility for feeding Austria. UNRRA agents estimated in June that the country could be made self-supporting by the expenditure of $89,000,000 to replace industrial equipment destroyed or removed. But no such sum was available. Mr. John Wraight, representing LaGuardia, said on June 26: "The Austrian food situation is the worst that I have seen in Europe."

Although employment remained high, while industrial production increased and the currency was relatively stable, Austrian workers faced starvation because of the rise of prices and the fall of wages. Savings were dissipated as consumers supplemented their meagre rations by purchases of foodstuffs on the black market. The situation was made all but desperate by Soviet requisitions and by American refusal to permit the movement of cattle

and other supplies from the American to the Russian zone, lest they be used to feed Soviet troops. On October 12, following an anti-American campaign in the Soviet and KP press, Gen. Mark W. Clark lifted the embargo and announced a new American aid program to the amount of $35,000,000. Recommendation by Gen. Clark and U.S. Minister John G. Erhardt of an American loan of $125 to $150 million further relieved the gloom engendered by the impending cessation of UNRRA at the end of December. But it was by no means certain at the close of the year, despite the announced determination of the Cabinet to effect the increase, that the ration of 1,200 calories could in fact be raised to the 1,550 maintained in the American and British zones of Germany.

The Dispossessed. Among the difficulties in the way of a viable Austrian economy were the claims of Jewish property-owners for restitution of holdings seized by the Nazis and the needs of displaced persons unwilling to return to their homelands. The "Aryanization" of Jewish property, the flight or murder of many original owners, and the transfer of many estates to others, some of whom had valid claims, made for slow progress in restitution. Austria's Jewish population increased from 15,000 in the spring to 34,000 by mid-summer because of the influx of new refugees from Poland. In addition, over 500,000 D.P.'s remained in Austrian camps at the end of the year, constituting a drain on Austria's slender resources in spite of the contributions of UNRRA and the occupying Powers to their support. The anti-Soviet and pro-Nazi orientation of many of these refugees, coupled with the fact that they did no work and enjoyed 2,000 calories a day, made all Austrians hope for their early removal or repatriation. At the turn of the year, however, no solution of the problem was in sight.

The Unredeemed. In foreign as in domestic affairs, the Government of Austria proposed, but others disposed. Most Austrians entertained hopes of recovering the lost province of the South Tyrol beyond the Brenner Pass, annexed by Italy in 1919 and still inhabited by an almost solidly Austrian population of 200,000 in and around Bozen (Bolzano). Early in 1946 Figl and Gruber urged a plebiscite and offered to safeguard Italian interests in waterpower developments and even to place the area under the military protection of U.N. in the event of a modification of the frontier. On April 30, however, the Council of Foreign Ministers in Paris decided that the South Tyrol should remain Italian. A further decision of June 24 closed the door to even minor border changes. Vienna rejected this settlement, but to no avail.

Over Soviet objections, Dr. Gruber was permitted to state the Austrian case before the Paris Peace Conference, but further discussion effected no change in decisions already reached. Finally the Foreign Minister, making a virtue of necessity, concluded an accord with the Italian Premier in September, accepting the old boundary but providing for ethnic autonomy for the South Tyrolese. This arrangement was denounced by the KP and by Soviet spokesmen, but it seemed likely to stand in view of Anglo-American support of the Italian position. British suggestions of an Austro-Italian customs union, on the other hand, appeared doomed by Austrian doubts and Soviet objections.

Vienna and Moscow. Austria's problems were at all points complicated by friction between the Soviet Union and the Western Powers. Each blamed the other for Austria's difficulties and sought to use them to derive advantages for itself. Throughout the year the U.S.S.R. insisted upon treating as "German assets" (subject to seizure or removal as reparations under the Potsdam Accord) numerous properties in the Soviet zone which the Austrian Government, along with London and Washington, regarded as being outside of this category. In April the Soviet authorities reduced their demands for control of farm lands to feed occupation troops and agreed to pay compensation to Socony-Vacuum and Shell for their holdings in the Zistersdorf oil fields. In May they consented to reduce their occupations costs and to supply UNRRA with oil needed for its Austrian program.

On June 27, however, Col. Gen. L. V. Kurasov signed a decree requiring that all "German assets" in the Soviet zone must be placed forthwith under Russian control. Figl and Clark protested that all properties which were under Austrian ownership before 1938 should be deemed Austrian and not German, despite subsequent forced transfers to Nazi ownership. On July 7 Soviet authorities ordered the expulsion of all *Volksdeutschen* (non-Austrian Germans), estimated to number 54,000, but evictions were halted two days later. The United States renounced all reparations from German assets in western Austria and on July 16 turned over to the Austrian Government the Hermann Goering iron works in Linz. The nationalization law of July was designed in part to forestall Soviet seizures of industrial property. Moscow, however, rejected Anglo-American protest and warned Vienna that it could not nationalize any plants claimed by the Soviet Union under its interpretation of Potsdam. This clash of wills led to the paradoxical situation of Moscow opposing socialization of industries while Washington and London championed it. On August 9 the Allied Council rejected Soviet demands that the nationalization law be held void, whereupon Soviet authorities declared that they would not permit its enforcement in their zone. The controversy was further embittered by arrests and deportations of sundry Austrians refusing to comply with Soviet demands.

Towards a Peace Treaty. While these and other issues were still unresolved at year's end, it was clear to all that Austria's fate was more than ever dependent upon agreement among the major Powers. After protracted negotiations in the spring, the four occupying States agreed on June 28 on a new control plan removing zonal restrictions on trade and travel and enlarging somewhat the authority of the Austrian Government. On October 30 Parliament unanimously instructed the Chancellor to work for full independence and the end of the military occupation. The Allied Council agreed on December 3 to reduce occupation costs to 15 percent of the Austrian budget after January 1, 1947. Further agreements were announced ten days later on food distribution and denazification.

The most hopeful development of the year, however, was the decision of the Council of Foreign Ministers in New York on December 9 to meet in Moscow on March 10, 1947 to discuss peace treaties with Austria and Germany. In both countries, Allied administrators had demonstrated their incapacity to perform the tasks of government satisfactorily and to solve the problems of economic reconstruction on the basis of any common program. Since Allied statesmen had no enthusiasm for creating a genuinely international administration for the whole territory of Germany or of Austria, no interest in a U.N. Trusteeship regime for either country, and no desire to effect a permanent partition of the German-speaking lands, the only remaining course was to restore Austrian and German sovereignty and to conclude treaties with the

local regimes. However dangerous such a procedure might prove to be in the case of the Reich, its desirability for Austria would seem to have been demonstrated by the frictions and frustrations of 1946. Further clashes and controversies, however, could safely be predicted before any Austrian treaty would be agreed upon. Austria's fortunes thus depended more than ever on the changing pattern of global relations among the Super-Powers. See GERMANY, GREAT BRITAIN, HUNGARY, ITALY, PARIS PEACE CONFERENCE, UNITED NATIONS, YUGOSLAVIA.

FREDERICK L. SCHUMAN.

AUTOMOTIVE SAFETY FOUNDATION. A philanthropic organization supported by annual contributions from more than 200 companies in the motor vehicle, parts and accessory manufacturing, rubber, petroleum, financing, and cement industries. Organized in 1937 and expanded in 1942, the Foundation makes grants of funds and staff services to a wide range of national organizations active in the program for safer and more efficient highway transportation. Chairman: Paul G. Hoffman. President: Pyke Johnson. Vice Presidents: Norman Damon and G. Donald Kennedy. Headquarters: Hill Building, Washington 6, D.C.

BADMINTON. The United States invitation tournament, most important national competition in badminton, was restored to the sports calendar last year and the event, held in Buffalo, was dominated by two popular stars. Carl Loveday of Montclair, New Jersey, carried off top prize in the men's singles by defeating Ken Quigley, Cleveland, Ohio, 15–14, 3–15, 15–5; and later paired with Quigley to annex doubles honors. Mrs. H. H. Starrett, Buffalo ace, won the women's singles crown by halting Miss Zoe Smith, Seattle, Washington, 7–11, 11–7, 11–3, and teamed with Miss Barbara Templeton, also of Buffalo, New York, for doubles honors.

Clinton Stephens, New York, New York, and Miss Patsy Roberts, Baltimore, Maryland triumphed in the mixed doubles, and the national veterans' title went to Frank Hinds, New York, New York, and Lee Gustafson, Boston, Massachusetts.

Loveday previously had won the men's singles in the annual Eastern championships and the graceful Mrs. Starrett had triumphed in the women's singles and in the doubles with Miss Templeton. Harry Keating and Bobby Williams, Buffalo, New York, scored in the men's doubles and Quigley and Miss Helen Gibson, New York, New York, took the mixed doubles laurels.

The world professional champion was Stan Cutts of Toronto, Canada.

THOMAS V. HANEY.

BAHAMAS. A British West Indian colony comprising 20 inhabited islands and many uninhabited islands and rocks. Land area, 4,404 square miles. Population (estimated) in 1943, 68,846. The chief islands with respect to population are New Providence (29,391) containing the capital, Nassau; Andros Island, Eleuthera, Long Island, Cat Island, Exuma, Abaco and Grand Bahama. The Governor and Commander in Chief (Sir William L. Murphy, April 20, 1945) is assisted by an executive council. There is a legislature consisting of a legislative council and a representative assembly which is elected by voters who must meet a small property qualification.

Nassau is an important tourist center, particularly for Americans, and considerable income is derived from the sale of goods and services to visitors. Sponges, sisal, tomatoes, and fruits are important products. Trade is largely with the United States but ships of British registry predominate.

About 85 percent of the population is colored. The birth rate in 1944 was 37.2 per 1,000 and the death rate was 17.6. Primary education from six to fourteen years of age is compulsory.

A site for a naval base on the island of Mayaguana was leased to the United States in 1940. See BRITISH WEST INDIES.

ALZADA COMSTOCK.

BAKER ISLAND. An island in the Pacific (just north of the equator; 176°31'W.) which was discovered by Michael Baker, of New Bedford, Massachusetts, in 1832. It has been formally considered an American possession since 1935 when colonized by students of a Hawaiian boys' school. The island is less than a mile in diameter. By an Executive Order issued May 13, 1936, the island was placed under the jurisdiction of the United States Dept. of the Interior. Its strategic importance lies in its position between Hawaii and Pago Pago, American Samoa, and in its use as a refueling station on the route between Hawaii and New Zealand. Early in 1942 U.S. armed forces were withdrawn but in the fall of 1943 they reoccupied the island without opposition and built a radio and aerological station.

BANKS AND BANKING. Banking trends were reversed in important respects during 1946. The rise in commodity prices and expansion in civilian business activity gave rise to a sharp increase in the demand for bank loans, commercial, industrial and consumer. On the other hand, Treasury borrowing ceased as the budget was brought into balance on a cash basis, and bank holdings of Government securities declined substantially for the first time in years as the swollen cash balance left by the Victory loan was used to retire public debt, primarily the short-term issues held by commercial banks. The decline in Government security holdings of the banks brought about a large decrease in total deposits, thus reversing the inflation of bank deposits characteristic of the war years. However, the decline in deposits was entirely accounted for by the very sharp reduction in Government deposits. Other deposits showed some increase for the year, due to the rise in bank loans.

Credit policy also changed in 1946. Whereas, during the war years, its primary objective was to assure adequate reserves to the banks for the purchase of huge amounts of Government securities to finance the nation's participation in the war, the authorities sought in 1946 to exert a limited degree of pressure upon the banks so as to curb the rate of credit expansion to some extent. This was accomplished through the Treasury's debt retirement program. There was growing support for further measures to lift short-term interest rates, but until the end of the year the Secretary of the Treasury and the Chairman of the Board of Governors of the Federal Reserve System refused to end the wartime policy of pegging interest rates on short-term Treasury obligations through unlimited purchases of such securities by the Federal Reserve banks at fixed yields.

Commercial Banking. Commercial loans by banks advanced to a record level in 1946. The largest rise occurred in commercial, industrial and agricultural loans, which expanded by $3,000,000,000 for the reporting member banks alone. Consumer and real estate lending also expanded. Changes in

bank investments, loans and deposits made by reporting member banks of the Federal Reserve System were as follows:

INVESTMENTS, LOANS, AND DEPOSITS OF REPORTING MEMBER BANKS IN 101 LEADING CITIES
(Monthly data are averages of weekly figures. In millions of dollars)

Months of 1946	U.S. Government Obligations	Other Securities	Commercial, Industrial and Agricultural Loans	Loans to Brokers and Dealers in Securities	Other Loans for Purchase or Carrying of Securities	All Other Loans	Demand Deposits Adjusted	Time Deposits
January	49,325	3,374	7,272	2,449	2,777	2,869	37,648	9,518
February	49,576	3,406	7,368	2,271	2,578	2,925	37,665	9,646
March	48,146	3,442	7,475	2,467	2,417	2,981	37,386	9,740
April	46,803	3,429	7,511	2,284	2,292	3,091	37,412	9,809
May	45,840	3,385	7,468	2,109	2,158	3,164	38,502	9,947
June	44,425	3,375	7,506	2,027	2,047	3,232	39,592	10,087
July	42,421	3,450	7,827	1,793	1,894	3,364	39,282	10,174
August	41,487	3,448	8,336	1,431	1,741	3,484	39,155	10,268
September	40,401	3,479	8,841	1,377	1,552	3,548	39,578	10,301
October	39,234	3,464	9,495	1,134	1,387	3,669	39,425	10,361
Nov. 27	37,859	3,384	10,149	1,325	1,233	3,841	40,135	13,904
Dec. 31	36,029	3,430	10,269	1,375	1,118	3,932	39,981	12,285

The rapidity of the increase in loans caused some concern among the credit authorities, the Federal Reserve banks issuing a questionnaire late in the year seeking data about loans made by member banks. It was presumed that, if the survey showed considerable use of bank credit for inventory speculation, proposals might be advanced for the grant of additional regulatory powers over bank lending to the Federal Reserve authorities by Congress.

While commercial lending expanded, bank holdings of Government securities declined as the Treasury redeemed the bulk of the certificates of indebtedness maturing during 1946, as well as notes and bonds that became due or were callable. This debt retirement program began March 1 and was largely completed on December 16, when an issue of 1½ percent notes that came due was paid off in cash. The effect of the debt retirement program upon Government deposits and security holdings of commercial banks was summarized by the National City Bank as follows:

(In billions of dollars)	*Feb. 28, 1946*	*Dec. 18, 1946*	*Change*
Total public debt	$279.2	$258.7	−20.5
War Loan account deposits	24.4	2.2	−22.2
Bank holdings of government securities	92 5	72.8	−19.7

Redemptions of short-term Treasury obligations held by the Federal Reserve banks tended to reduce reserves of member banks. Withdrawals from the banks of Government deposits to pay off maturing obligations held by others than banks also put pressure upon the reserve position of individual banks. As a result, active buying in the market of longer-term Government securities by commercial banks, which occurred in the early part of the year, came to a halt. Instead, commercial banks became sellers of Government securities to the Federal Reserve banks and other purchasers, in order to replenish their reserves. The bulk of outstanding Treasury bills still held by commercial banks were sold to the Federal Reserve banks, as the lowest cost method of securing more reserves. When the Federal Reserve banks in April eliminated the wartime preferential discount rate of ½ of 1 percent on advances secured by Government obligations falling due within one year and the member banks had largely disposed of their Treasury bill holdings, the favored method of replenishing reserves became the sale of certificates of indebtedness to the Federal Reserve banks. This involved a loss of income of ⅞ of 1 percent, a higher cost of reserve credit that led to a tightening of short-term interest rates charged by banks. While the amount of the rise in lending rates varied from bank to bank, the extent of the increase was reflected in open market money rates. The rate on prime commercial paper rose from ⅝ of 1 percent at the beginning of the year to 1 percent at its end. The rate on prime 90-day bankers' acceptances advanced from 7/16 to 13/16 of 1 percent, and the stock exchange call money rate was lifted from 1 to 1½ percent.

The reduction in bank holdings of Government securities reduced the earning assets of banks, but the effect of this reduction was offset by higher interest rates. Bank profits were adversely affected by increased expenses, particularly salary advances made necessary by advancing living costs. In the first half of 1946, earnings of member banks from all sources aggregated $1,175,000,000, an increase of $159,000,000 over the same period in 1945. Expenses rose to $694,000,000, an increase of $93,000,000. After recoveries, charge-offs and taxes, net profits were $429,000,000, an increase of $38,000,000. Cash dividends declared by member banks in the first six months totaled $124,000,000, an increase of $8,000,000 for the year.

Federal Reserve Policy. The Federal Reserve System placed efforts to combat inflation at the forefront of its policy objectives, rather than the facilitation of Government financing which dominated the System's activities during the war. However, anti-inflation measures were seriously hampered by the policy of pegging the Treasury bill rate at ⅜ of 1 percent and the certificate of indebtedness rate at ⅞ of 1 percent, which was unchanged during the year.

The most significant positive action taken by the Federal Reserve System during the year was the elimination of the wartime preferential discount rate of ½ of 1 percent on advances to member banks secured by Government obligations due or callable in not more than one year. In announcing this action on April 24, the Board of Governors stated:

"The Board has approved discontinuance of the preferential rate because it has served the purpose of facilitating the war-financing program for which it was adopted in 1942. The Board does not favor a higher level of interest rates on U.S. securities than the Government is now paying. Discontinuance of the special rate will not involve any increase in the cost to the Government of carrying the public debt.

"The preferential rate encourages member banks to borrow at Federal Reserve Banks in order to hold or to purchase additional Government securities, or to lend to others at low rates for the purpose of holding or purchasing government securities. While such encouragement was justified early in

the war to induce the banks to utilize their reserves more fully in financing huge war expenditures, it has subsequently made for speculation in Government securities and has resulted in unnecessary expansion of the money supply through monetization of the public debt. The Government's program no longer calls for expansion of bank credit to help finance huge war expenditures. Instead, it calls for action that will stop additions to and bring about reductions in the country's monetary supply in order to reduce inflationary pressures. Discontinuance of the preferential rate, therefore, signifies an appropriate adjustment from wartime to postwar conditions in accordance with the Government's program of economic stabilization."

During the early months of the year the Federal Reserve authorities were preoccupied with the tendency of commercial banks to buy long-term Government obligations in the market in order to increase their earnings. This further monetization of the national debt was considered a serious problem, leading to the presentation to Congress of proposals for drastic new regulatory powers for the Federal Reserve System. In June, the Board of Governors of the Federal Reserve System proposed to Congress amendments to the Federal Reserve Act that would:

1. Authorize the Board of Governors to specify the maximum amount of long-term marketable securities, public and private, that any commercial bank may hold against its demand deposits.

2. Authorize the Board of Governors to require commercial banks to hold a specified percentage of treasury bills and certificates of indebtedness as secondary reserves against net demand deposits, over and above their cash reserve requirements.

3. Authorize the Board of Governors to raise member bank reserve requirements against net demand deposits above the maximum ratios provided in the present law. It suggested also that all commercial banks be subject to the same reserve requirements, so that non-member banks would have to conform to those imposed upon member banks.

4. Grant the Board of Governors permanent control over consumer credit terms. Supporting this latter recommendation, the report stated:

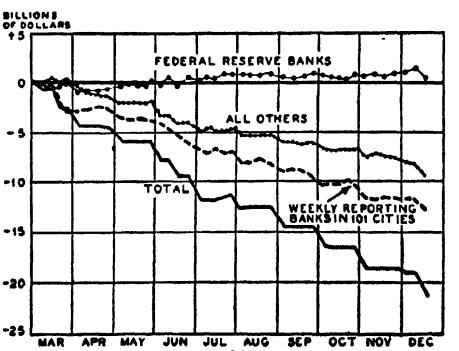
"From time to time the expansion and subsequent contraction of consumer credit have gone so far as to accentuate the upswings and downswings of the business cycle. There is no way of preventing such excessive expansion and contraction except governmental regulation of the terms on which consumer credit shall be made available, such as the down payment required on instalment sales or financing and the length of time permissible for instalment contracts."

Pressure for the enactment of these proposals relaxed, however, when the Treasury's debt retirement policy checked commercial bank purchases of long-term Government securities and imposed a restraining influence upon bank credit expansion. The results of the November elections also clouded the outlook for legislation to grant additional powers to the Board of Governors of the Federal Reserve System.

The stand of Chairman Marriner S. Eccles of the Board of Governors of the Federal Reserve System as regards credit policy was summarized in an address late in the year. Mr. Eccles opposed unpegging the certificate of indebtedness rate on the ground that this step would increase the cost of carrying the national debt and add to bank earnings, which he already considered adequate. "If short-term rates were permitted to rise sharply," Mr. Eccles stated further, "there would also be pressure to drive long-term rates up. This would jeopardize the savings bond sales program and cause wholesale redemptions." On the other hand, President Allan Sproul of the Federal Reserve Bank of New York, in an address made in December, favored an increase in the rate at which certificates of indebtedness were pegged to 1 percent or 1¼ percent as a further mild measure, following the Treasury's debt retirement program, for discouraging credit expansion. Ending the certainty as to the yields at which short-term Government securities would be pegged by the Reserve banks, Mr. Sproul argued, would restore a measure of control over the volume of credit to the Federal Reserve System, which is helpless to check credit expansion so long as member banks can secure more reserves at will by selling certificates of indebtedness to the Federal Reserve banks at the pegged rate. "There is a vast difference," Mr. Sproul argued, "between supporting a market at your own discretion, at rates which can move up or down, and supporting a market at fixed rates which you have announced in advance your determination to maintain." Furthermore, Mr. Sproul contended, the initiative in setting the cost of Reserve bank credit should be restored to the Federal Reserve System.

The Federal Reserve authorities took two other steps to tighten qualitative control over credit expansion, while refusing to use the traditional weapon of higher interest rates to check inflationary tendencies in the economy. On January 21, the Board of Governors of the Federal Reserve System raised margin requirements to 100 percent on new extensions of credit on securities, thus cutting off the use of bank credit or loans by brokers to finance security buying. Even after the stock market declined sharply in September, the Board of Governors refused to relax this 100 percent margin requirement. On December 1, however, Regulation T applicable to brokers' loans and Regulation U to bank loans on securities were modified to permit the purchase on a 50 percent margin of stocks being offered to their shareholders by corporations through the issuance of rights.

The Board of Governors of the Federal Reserve System also resisted pressure for modification or elimination of its Regulation W, applicable to consumer credit. On December 1, Regulation W was revised so as to restrict its application to instalment loans and instalment credit used for the purchase of major durable goods. Charge accounts and single payment loans were eliminated. At the same time,



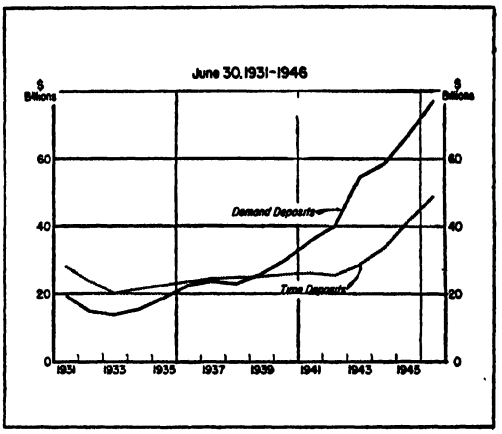
National City Bank

COMMERCIAL BANK HOLDINGS OF GOVERNMENT SECURITIES

(Cumulative weekly from February 27, 1946)

Congress was urged by the Board of Governors to enact legislation providing for permanent control over instalment credit terms by the Board of Governors of the Federal Reserve System. Regulation W now rests upon an Executive Order of the President which is revocable by the President or by action of Congress.

The Money Supply. Money in circulation reached a record level late in the year, somewhat above the wartime peak, in response to rising commodity prices and the larger volume of civilian employment. Demand deposits of individuals also increased moderately during the year, although total deposits declined because the Treasury used its balances to pay off maturing Government securities held outside the banks and the expansion of commercial loans gave rise to new deposits. The turnover of demand deposits of banks in New York City declined in the later months of the year with the reduced activity in the security markets, but turnover of deposits of banks outside of New York City was well maintained with business activity.



DEPOSITS IN BANKS—ALL ACTIVE BANKS

A pioneer study of the ownership of liquid assets was carried out by the Bureau of Agricultural Economics at the request of the Board of Governors of the Federal Reserve System. This survey showed that ownership of bank deposits and Government securities by individuals was not as widely distributed as had been generally supposed, despite the wartime tendency towards a wider distribution of national income. The survey, based upon a limited sample, indicated that the top 10 percent of the 46,000,000 spending units of the nation owned 60 percent of all liquid assets, while the bottom 40 percent of the spending units owned 1 percent. A spending unit consists of persons living in the same dwelling and belonging to the same family who pool their income. These findings are summarized in the accompanying table.

DISTRIBUTION OF PERSONAL LIQUID ASSET HOLDINGS, END OF 1945

pending Units by Percentage Classes		*Percentage of All Assets Held*	*Average Amount of Holdings (In Dollars)*
Top	10 per cent	60	10,500
Next	20 per cent	27	2,350
Next	30 per cent	12	700
Bottom	40 per cent	1	40
Total		100	1,750

JULES I. BOGEN.

BAPTIST CONVENTION OF AMERICA, National. The Sixty-sixth Session of the National Baptist Convention of America convened in Columbia, South Carolina, September 4–8, 1946 with the Zion Baptist Church, Rev. J. P. Reeder, D.D., as entertaining church and pastor. The parent body's sessions were held in the City Auditorium of Columbia, the Woman's Auxiliary convened in the Zion Baptist Church. Meeting jointly were other Auxiliaries, such as the Junior Women's Convention, the Baptist Brotherhood and the Youth's Convention.

The key note of the Convention was "Lifting Up The Christ." The major objectives were: Foreign Missions; Home Missions; Religious Education; and Temperance. The seven Boards which do the work of the Convention during its interim made their reports through their chairmen and corresponding secretaries. The two representatives of the Convention who were authorized to do the work on foreign fields and who went to Africa and the West Indies made their reports, submitted their findings and recommendations of what they found, saw and would like to have done under the authority of the parent body.

Three new state bodies were added to the roll for the year. 700 District and County Conventions were enrolled through the week through representatives and messengers. The statistician reported an increase in membership of 152,201, bringing the total numerical strength of this Convention up to 2,318,022 members. A nation-wide Evangelical Campaign was endorsed as one of the objectives for the new year. The Foreign Mission Board's guarantee to raise $60,000.00 for the erection of a hospital, a Baptist school and four dormitories for missionaries in Africa was concurred in, and the campaign is to be launched early in 1947.

Three new Colleges were added to the Educational Board's objectives, bringing the total schools now assisted financially by the Convention up to eight. They are the Lynchburg Theological Seminary, Lynchburg, Virginia, Georgia Baptist College, Macon, Georgia, Florida Normal & Industrial College, St. Augustine, Florida, Conroe College, Conroe, Texas, Union Theological Seminary, New Orleans, Louisiana, Guadalupe College, Seguin, Texas, Mary Allen College, Crockett, Texas and Coleman College, Shreveport, Louisiana.

The Convention re-affirmed its action of last year in favor of a Prohibition Law, a Permanent F.E.C.P., the Repeal of the Poll Tax, the passage of the Anti-Lynch Bill and a permanent movement for the establishment of peace throughout the world, urging the United States representatives at the Peace Conference to pray for divine guidance in their deliberations.

The amount in cash raised at the Convention was $59,269.00. The amount of money raised during the year by the various Boards and Departments of the parent body was $563,817.49. The appropriations made by the Convention were $20,000.00 for Foreign Missions, $6,000.00 for Home Missions, $8,000.00 for Education, $1,000.00 each for promotion work of the Woman's Auxiliary Convention, Junior Women, Benevolent Department, Home Missions, Foreign Missions and Education.

The following are the major officers elected for the ensuing conventional year: Rev. G. L. Prince, President, Galveston, Texas; Rev. G. G. Daniels, Secretary, Georgetown, S.C.; Rev. A. A. Lucas, Treasurer, Houston, Texas; Rev. A. L. Roach, Field Secretary, Cleveland, Ohio; Rev. Wm. Grimble, Corresponding Secretary, Alexandria, La.; Rev. L. B. Tolson, Houston, Texas, Statistician; Rev. M. C. Allen, Auditor, Baltimore, Md.

The 1947 session of the Convention will be held in Little Rock, Arkansas, September 10–14, Rev. C. D. Pettaway entertaining pastor, and First Vice President. The National Baptist Publishing Board, with Henry A. Boyd, Secretary, 523 2nd Avenue North, Nashville, Tennessee, is the accepted headquarters of the Convention.

BARBADOS. An island colony of the British West Indies. Area, 166 square miles. Population (estimated) January 1, 1945, 203,528. Capital, Bridgetown. The Governor (Sir Hilary Blood, 1946) is assisted by an executive council and an executive committee. There is also a legislative council of ten appointed members and a house of assembly of twenty-four members elected every two years by the people.

A good proportion of the island is cultivated, with sugar as the major crop. Sugar, molasses, rum, tamarinds, cotton, and margarine were the important exports in 1944. Imports were chiefly cotton textiles, fertilizers, wood products, iron and steel products, and articles of food and clothing.

BASEBALL. The year 1946 marked the dawn of a new golden era in sports and our national pastime, first to get away from the barrier, was the first to reap the benefits. Although many returning veterans found difficulty rounding into condition and the caliber of play was far below the prewar standard it mattered little to the fans. With money plentiful and the desire of an athletic-minded nation to enjoy itself after the long period of restraint, the turnstiles kept spinning through the long campaign.

The year included such unprecedented events as a tie for the National League pennant, bringing about the first playoff in the game's history; an attempt to unionize players that resulted in a period of labor strife; an international "incident" caused when Mexico's fabulously-rich Pasquel brothers lured some American stars over the Rio Grande with fat contracts, and one of the biggest upsets in world series history when the St. Louis Cardinals tripped Boston's highly-regarded Red Sox in a seven-game struggle.

However, the real record-making was done by the fans themselves and even promoters and club owners, who had known the lush days of the "Roaring Twenties," hardly were prepared for the great outpouring at the gate. During the past few years only the more successful clubs in New York, Chicago and Detroit had topped the million mark in home attendance, but in 1946 no fewer than ten clubs rocketed over this figure while one passed the incredible two-million mark. This occurred at the Yankee Stadium where Larry MacPhail, by refurbishing the "House That Ruth Built" and installing brilliant lighting for night ball, enticed 2,309,029 persons to see the Yankees play their 77-game home schedule. However, the New York nine itself didn't have the glitter to match its surroundings and the once-great Yankees, staggering along under three different managers during the season, fell out of pennant contention before midseason and finished a weak third behind Boston and Detroit.

In the American League, the Red Sox, Tigers, Indians and Senators also drew more than a million fans at home. Those in the National to exceed that figure were the Dodgers, with 1,796,155; the Cubs, Cardinals, Phillies and Giants, the last-named turning the trick with a club that finished last. The two circuits combined attracted 18,612,704, more than seven million over baseball's best previous year. Add to this a jump in the minor leagues from 18,000,000 in 1945 to 31,000,000 last year and it is apparent that baseball really found a rich plum.

The major leagues provided a pair of extraordinary flag races. Flashing a galaxy of stars, the long overdue Boston Red Sox made a runaway of the American League pennant drive. By July the battering Sox, led by the power hitting of Ted Williams, Dom DiMaggio, Johnny Pesky and Rudy York, had shaken off all pursuers, including the highly-favored Yankees, and from there they went on to win in a breeze and give Boston its first flag in twenty-eight years.

In the National League, it was a different story as the well-backed St. Louis Cardinals just couldn't get away from the amazing Dodgers, who had been given little consideration in the Spring. The two teams fought neck and neck through the campaign and as the sun set on the final Sunday of the season, the two were deadlocked for first place. This brought about a unique two-out-of-three playoff and victory finally went to Eddie Dyer's Redbirds. They blasted the Dodgers hopes in two straight contests, the first in St. Louis and the second in Brooklyn.

It was then the baseball world acclaimed Dyer, a pennant winner in his freshman year as a major league pilot. But fandom began to feel sorry for Dyer and experts gave the Cards little chance against the steady pitching and superior attack of the Red Sox.

Fighting hard behind their great southpaw, Harry (The Cat) Brecheen, the Redbirds not only silenced the big guns of Williams, but fought the other Sox right down to the wire to win the seventh and deciding game by 4–3. And baseball saved its biggest thrill for the last game of the year as Enos Slaughter, taking advantage of a momentary lapse on Boston's part, raced all the way from first base with the winning run after Harry Walker's short double. The triumph did much to sooth the hurt feelings of National League fans, who had practically conceded the world's championship to the American League as early as July when the junior circuit's team embarrassed the National League's representatives by a record 12–0 score in the All-Star contest.

The distribution of individual honors for the year proved difficult, but one player stood out above all others and he was Stan Musial, star first baseman of the Cardinals, whose fielding and heavy hitting inspired the Redbirds through the pennant race and the long series. The converted outfielder not only won the National League batting crown with an average of .365, but was voted the most valuable player in the circuit. Then there was Brecheen, star in the pinches all season, who won three world series games to become the first pitcher to do so since Stan Coveleskie achieved the feat in 1920.

Williams, despite a letdown in the series, in which he got only five hits in twenty-five official times at bat, and his failure to capture the American League hitting title, received the most valuable player award in his circuit. Mickey Vernon of the Washington Senators paced the American league in batting with a .353 percentage.

Hank Greenberg of Detroit, playing his first full season since 1940, was the outstanding slugger of the majors with 44 home runs, while the foremost pitcher was Bob Feller of the Cleveland Indians. In striking out 348 batters, Bob erased the listed record of 343, set by Rube Waddell back in 1904 and one of the oldest standards in baseball annals. Dave Ferriss of the Red Sox led in games won with a mark of 25 and 6.

Off the field, numerous unforeseen things developed. Early in the Spring came "raids" on the ranks of the majors by the Mexican League, financed by the wealthy Pasquel brothers. Although players were threatened with a five-year ban from American baseball if they jumped to Mexico, more than a score yielded, including such stars as Max Lanier and Lou Klein of the Cardinals and Mickey Owen of the Dodgers. Owen returned to this country later but found himself a star without a team when Commissioner Happy Chandler stuck fast to his five-year ban of the "wayward" players.

Following this came the attempted unionization of players, which led to a revolutionary step among club owners who invited player representatives to draw up better contracts, which included pension plans.

Further news-making came in the turnover of managers, the Yankees playing under three during the campaign. The New Yorkers started with Joe McCarthy, who retired because of ill health; then tried Bill Dickey and finally Johnny Neun, who later moved on to become new pilot of the Cincinnati Reds, replacing the veteran Will McKechnie. And as 1946 drew to a close, Bucky Harris was chosen to guide the Yanks back onto the winning trail and he immediately began rebuilding for the 1947 campaign.

Other skippers to go overboard were Luke Sewell of the St. Louis Browns, now piloted by Muddy Ruel; Jimmy Dykes of the Chicago White Sox, who was succeeded by Ted Lyons, and Frankie Frisch of the Pittsburgh Pirates, who was replaced by Billy Herman.

The minor leagues, in addition to shattering records at the gate, added a page to diamond history when Jackie Robinson, first Negro ever to play in organized baseball, paced Montreal's Royals to the International League championship, triumphs in the Governors' Cup playoffs and the little world series against Louisville, which had won the American Association flag. Robinson, in his first season, carried off the International circuit batting crown with the average of .349.

Dallas triumphed in the Texas League and the Dixie series, Atlanta took Southern Association laurels and San Francisco took the Pacific Coast title.

THOMAS V. HANEY.

BASKETBALL. Our most popular Winter sport continued its swing upward last year, and once again Madison Square Garden, under the guiding hand of the genial Ned Irish, captured the national spotlight. Attracted by 21 doubleheaders, bringing together the outstanding college quintets of the country, more than 600,000 fans were drawn to the big New York arena and only once did a twin bill play to fewer than 18,000 persons.

Oklahoma's Aggies, with seven-foot Bob Kurland, the big gun in a fast-moving attack, kept its top perch in intercollegiate competition, compiling a record of 31 victories against only two losses for the campaign. The Cowboys successfully defended their National Collegiate Athletic Association crown by conquering North Carolina, 43–40, before 18,479 persons at the Garden, Kurland netting 23 points in that important struggle. The marksmanship of Kurland, generally acclaimed as the player of the year, and the all-around work of Weldon Kern proved too much for the Tarheels, who rallied strongly near the close of the battle.

Third place in the N.C.A.A. finals went to Ohio State, which beat California, 63–45. The Aggies had reached the title playoffs by routing California, 52–35, in the Western Division final as Kurland made 29 markers, while North Carolina earned the right to represent the East with a 60–57 triumph over Ohio State in an overtime contest.

Another highlight of the year was the Garden's annual intercollegiate invitation tournament, Kentucky being returned the victor when it topped favored Rhode Island State, 46–45, on Ralph Beard's last-minute foul shot. Third place in the colorful event went to West Virginia when the Mountaineers halted Muhlenberg, 65–40.

Added to the 1945–46 college card was a game between the East and West All-Stars, which drew 18,157 fans to the Garden. The underdog Eastern five upset the West, 60–59, in a real thriller, proceeds of which went to the Tribune Fresh Air Fund. A preliminary, bringing together Cliffside Park High of New Jersey and Southern High of Baltimore, Maryland, two of the nation's leading schoolboy quintets, ended with Cliffside triumphant by 43–29.

For the first time in several seasons, winners of the N.C.A.A. and invitation tourneys were unable to get together for the annual Red Cross benefit bill, and last-minute arrangements were made to bring the powerful Phillips 66 Oilers, four-time national A.A.U. champions from Bartlesville, Oklahoma, East to meet the New York A. C. The Winged Foot five, metropolitan A.A.U. ruler, was within 25 seconds of recording the year's biggest upset when the speedy Oilers rallied to tie the score at 63–63, and then draw away to win, 69–64.

In a preliminary, the United States Navy Armed Guard Center, Third Naval District champion, turned back the Tilton General Hospital team, 67–55, to hang up its twenty-eighth triumph in 30 starts. The twin bill netted more than $12,000 for the Red Cross.

One of the season's major surprises came in the annual meeting of Notre Dame and New York University, the Violet standing off a spirited closing bid by the Fighting Irish to gain a 62–58 decision.

The Pacific Coast Conference resumed its title playoffs—dropped during the war—and California, Southern Division champion, captured the title for the seventh time by toppling Nevada, Northern ruler. Nevada, which had won group honors for the first time in 23 years, bowed to the Bears in the third and deciding contest, 55–36. Kentucky won Southeastern Conference laurels for the third straight year and eighth time, while Duke dethroned North Carolina in the Southern Conference. Dartmouth annexed its eighth Eastern League crown in nine seasons; Ohio State won in the Big Ten, Kansas State in the Big Six and Wyoming in the Big Seven.

The Phillips Oilers again swept through the national A.A.U. tournament, with Nashville repeating in the women's competition. Canadian senior honors went to the Victoria Dominoes.

In professional basketball, the Baltimore Bullets turned back the Philadelphia Sphas to oust the Sphas as American League kings, while the Rochester Royals triumphed in the National League. Top prize in the world pro championship tourney was captured by the Fort Wayne Zollners for the third consecutive season. A new tournament scoring mark was set by the Rens, New York Negro five, when they defeated Toledo, 82–39, the previous mark of 80 points having been established by the Dayton Acmes the year before.

THOMAS V. HANEY.

BASUTOLAND. A British native territory in southern Africa. Area, 11,716 square miles. Population

(1936 census), 562,411, including 559,377 natives. Capital, Maseru. The territory is administered by a resident commissioner under the direction of the High Commissioner for the British High Commission Territories in South Africa.

The principal crops are wheat, maize, sorghum, barley, oats, beans, peas and other vegetables. Sheep raising is an important enterprise and wool is by far the largest export. Cattle, wheat, and sorghum are also exported. Imports, consisting largely of agricultural and domestic implements and supplies, were £1,033,328 in 1942 while exports were only £459,509. Resident Commissioner, C. N. A. Clarke, appointed 1942.

BATTLE MONUMENTS COMMISSION, American. A Commission created by Congress in 1923 to erect, or control the erection of, monuments to the American forces in Europe during World War I, and to maintain the American national cemeteries and memorials in Europe. Chairman: Gen. John J. Pershing.

BECHUANALAND. A British protectorate in southern Africa. Area, 275,000 square miles. Population (1936 census), 265,756, including 260,064 natives. The territory is administered by a resident commissioner, acting under the High Commissioner for the British High Commission Territories in South Africa. The headquarters of the administration is Mafeking, Cape Province. The native tribes are ruled by their chiefs as before the territory was incorporated in the British sphere, but now under the protection of the King. Much of the country is pastoral and cattle are raised in large numbers. Resident Commissioner, A. D. F. Thompson.

BELGIAN CONGO. Belgium's only colony, located in central Africa and embracing a large part of the basin of the Congo River. Area, 902,082 sq. mi. Capital, Léopoldville.

Characteristics of the Population. The native population on Jan. 1, 1945, was 10,389,155. Whites numbered 36,080, of which two-thirds were Belgians. Most of the natives are Bantu and Sudan Negroes, with a few Nilotic tribes in the northeast and some Pygmies scattered in the interior.

The Belgians point with pride to the number of schools available for the natives. Most of these schools are provided by Christian missions, though many are subsidized by the government. In 1945 there were 5,903 subsidized primary schools (311,388 pupils) and 56 subsidized secondary schools (3,872 pupils). Not subsidized were 199 primary schools (46,827 pupils), 8,994 rural schools (246,424 pupils), and 24 professional schools (1,343 pupils). In general, instruction in technical fields is emphasized rather than in social or broadly cultural studies.

The great mass of the natives is still pagan. The work of the Christian missions is carried on by some 4,000 missionaries (three-fourths of whom are Roman Catholics), without whose activities the government would have been compelled to engage far more widely in educational and welfare work than is now the case. Compared with adjacent colonies, the Belgian Congo has in recent years enjoyed a reputation as one of the most progressive in health and sanitary measures. The Belgians proceed on the theory that a healthy native population is an economically efficient one.

Government. The administration is under the general supervision of the Belgian Minister of Colonies, normally an appointee of the King, and is assisted by a Colonial Council. At the head of the actual administration is a Governor-General, assisted by a Vice-Governor, state inspectors, and six provincial governors. The provinces are in turn divided into districts and these are subdivided into administrative territories. The frame of government is thus centralized, hierarchical and with little place for native participation.

The Congo is saddled with a large debt, though not unwieldy in view of the Colony's expanding economy. In 1939 the figures were: consolidated debt, 3,992,980,029 francs and floating debt, 480,004,400 francs, in addition to 1,368,957,250 francs of guaranteed capital. In 1945 government receipts were estimated at 1,765,683,000 francs and expenditures were 1,601,405,000 francs.

Events, 1946. Belgian colonial administration has never been distinguished by any real effort to prepare the native population for self-government. It was therefore of some interest that in November 1945 an executive order was issued creating an Advisory Council for the whole colony, and one for each province. Their members were to be appointed by the Governor-General, and they were to have only consultative authority. The composition of the councils was to be made up from four specified categories of officials and non-official persons. Though African representives were specifically provided for, only two or three of these would be natives, the others being missionaries or retired officials. These Councils came into operation early in 1946.

In an address on July 8, M. Robert Godding, Minister of Colonies, discussed the problem of increasing Belgian migration to the Congo. He pointed out how useful the 25,000 Belgians there had been during the recent war, and voiced the hope that this number would increase so that in the event of another invasion of Belgium the Congo could serve as a sort of national redoubt. He called attention to the fact that the death rate of whites in the Congo had dropped from 22 per 1,000 in 1920 to 7 per 1,000 in 1940. He visualized many opportunities for European settlers without in any way interfering with the development of native industries.

The annual report of the Union Minière du Haut Katanga, presented in Brussels on July 8, showed that copper production had declined while prices had risen. In 1945 most of the 160,200 metric tons produced was purchased by the United States. Shipments during 1946, however, were going to Belgium and other European countries. England withdrew from the market after having taken over 700,000 tons since 1940. As for radium, during the war sales varied from 80 to 150 grams a year, but were now decreasing. Instead, uranium ore had become an important product and was being used in experiments to produce "canned power." From other sources it was learned that an experimental pilot plant for this purpose had been built. During the war most of the Congo's uranium production went to the United States for use in the fabrication of atomic bombs.

On January 13 the *African Clipper* of Pan American Airways left New York on its flight inaugurating fortnightly service to Léopoldville. Following a course via Newfoundland, Eire, Lisbon and Monrovia, this route put the Belgian Congo within forty-one hours of New York City. Later in the year Air France inaugurated a service from Paris to Léopoldville. Various feeder lines were being organized to provide local services within the Congo.

During January the Belgian Congo ambulance unit returned home after having served in Ethiopia, Madagascar, Ceylon and India.

The Economy of the Country. The Belgian Congo is, industrially speaking, one of the most advanced colonies in Black Africa. The country is rich in mineral resources, fertile soil and potential water power (only a fraction of the colony's potential water power—second largest in the world—is now utilized). The natives have shown themselves readily adaptable to work in mines, factories and offices. The Belgian régime has also been very friendly to the introduction of outside capital. As a result the production of the Congo's plantations, mines and textile mills has been highly profitable.

Production figures for 1944 are as follows: rubber, 11,000 metric tons; peanuts, 50,000 tons; cotton, 30,000 tons; palm oil, 120,000 tons; copper, 165,484 tons; gold, 11,328 kilograms; diamonds, 7,144,552 carats (world's leading producer by weight); tin, 23,790 tons; as well as important amounts of manganese, zinc and iron.

The colony's foreign trade, much of which passes through the port of Matadi on the lower Congo, in 1944 amounted to: exports, 4,620,548,000 francs; imports, 2,948,922,000 francs. The United States and the United Kingdom each took 1,500,000,000 francs worth of Congo products. The United States also provided imports worth 1,194,995,000 francs. The return of peace was, however, expected to alter the direction of the Congo's trade relations.

The Congo River and its larger tributaries are navigable for varying distances. The Congo itself is broken at several points by cataracts, around which railroads have been built. Navigable rivers total more than 7,500 miles, railways 3,106 miles, and roads 56,000 miles. Before the war the Congo was served by several international airways and possessed an extensive internal network operated by the Sabena Company.

Ruanda-Urundi, Territory of. These two districts, formerly part of German East Africa, were assigned to Belgium as a B Mandate after World War I. The Territory has an area of 20,152 square miles and an estimated population of 3,767,002—one of the most dense in Black Africa. The capital is Usumbura. In 1925 the Territory was joined administratively with the Belgian Congo and placed under the direction of a vice-governor. In 1945 there were 3,609 schools with 224,314 pupils. Cattle-raising is important. The chief exports are cotton, coffee, hides and tin. In 1944 the budget was balanced at around 88,000,000 francs.

Events, 1946. The Belgian government offered to transfer the mandated territory of Ruanda-Urundi to the United Nations in order to make it into a trusteeship area.

ROBERT GALE WOOLBERT.

BELGIUM. A kingdom of Western Europe. Capital, Brussels. King, Leopold III, who was crowned Feb. 23, 1934; he was a German prisoner-of-war from May 27, 1940 to May 8, 1945 (For his present status, see below under *Events*). Regent, Prince Charles, Leopold's younger brother, who took the oath on Sept. 21, 1944.

Area and Population. The area of Belgium, including the districts of Eupen and Malmédy, is 11,775 square miles. The estimated population on Jan. 1, 1945, was 8,334,276. The people are of two distinct races, the Flemings, of Germanic stock and the Walloons, of Celtic or Alpine racial origin. French and Dutch are official languages.

Other Population Statistics. Estimated population of the chief cities on January 1, 1945: Brussels and suburbs, 898,352; Antwerp, 254,057; Ghent, 159,321; Liége, 152,507. Births in 1944 numbered 124,075 against 105,749 in 1942. There were 124,861 deaths in 1944 against 117,291 in 1942. In 1944 marriages totaled 45,352 and divorces 3,398.

Education and Religion. During 1942–43 there were 886,288 pupils in 8,574 elementary schools, 81,192 students in 267 secondary schools, and 14,315 students in three universities at Louvain, Ghent and Liége. Roman Catholics form a large majority of the inhabitants who profess a religious faith. There is full religious liberty.

Government. The Constitution of 1831, as amended in 1921, vested executive power in the King, acting through a Ministry responsible to Parliament. See YEAR BOOK for 1940, for the governmental system existing at the time of the German invasion of May 10, 1940. On July 18, 1945, a law was passed to amend the Constitution to permit the establishment of a Regency with Prince Charles as Regent.

Events, 1946. Belgium, in 1946, performed the remarkable feat of prospering economically while teetering continually along the edge of a political precipice.

The country's political life continued under the shadow of the unsolved "King Question." Although Leopold III made no further attempt to return from his involuntary exile in Switzerland, his stubbornly maintained claim to the throne kept the nation in suspense and perpetuated the cleavage between Left and Right.

Immediately after the dissolution of the Belgian Parliament on January 9, the King made a strong bid for a popular plebiscite on the question of his return to the throne. In an interview with C. L. Sulzberger of the *New York Times*, on January 20, he declared: "I am by right the King of the country and I shall abdicate only if I know that this is the wish of the majority of the people. So far there have been no indications that such is the wish of the majority. . . . I hope that the new Parliament that will be elected will accurately represent the people and that it will then pass a law permitting a national referendum on the question of my return; and furthermore, I hope no political group will be able to block such a referendum, which is essential."

On the same day, however, an exchange of letters between Leopold and Prime Minister Achille van Acker was made public in Brussels which showed that the Government had politely but firmly turned down the King's request for a plebiscite.

But the Government could not prevent the matter from becoming an election issue of first-rate importance. The large, conservative Christian Social party made the King's demand for a referendum its own and centered a vigorous election campaign upon it. All the other parties were opposed to it, with varying degrees of firmness and passion.

The general election was held on February 17, and resulted in the expected advance of both the extreme Right and Left, at the expense of the center. The chief victor was the Christian Social party, which captured 92 seats in the Chamber, out of a total of 202. The Socialists, although they lost their rank as largest party in the country, nevertheless increased their vote and gained 69 seats in the Chamber. The Communists more than doubled their representation in the House, jumping from 9 to 23 seats. The middle-of-the-road Liberal party paid the bill, retaining only 17 seats, against 33 in the old Parliament.

This outcome of the eagerly awaited election was disappointing to all concerned inasmuch as it did not alter the political balance, but made it more precarious instead. Paradoxically, the only real winner of the day was the only loser of the electoral

battle, the Liberal party, whose support now was more indispensable than ever for any government wanting to get a majority in the evenly divided House.

The situation was made even more equivocal by the subsequent senatorial elections at the end of February. These gave the Christian Social party 83 seats in the 167-man Senate, as compared with 55 Socialist, 17 Communist, and 12 Liberal seats, a total of 84 for the coalition previously in power.

Even before the Senate vote, Premier Van Acker and his Cabinet handed in their resignations to the Regent on February 18. Prince Charles, in accordance with parliamentary tradition, then asked the leader of the victorious Christian Social party, Auguste E. de Schryver, to explore the possibilities of a right-wing government. The Catholic leader, however, was unable to enlist the support of any other political group in Parliament, although a Liberal spokesman, the day after the general election, had declared, "We are prepared to make an alliance with the Catholics or the Socialists—it all depends on what is offered to us."

The Regent thereupon asked Paul-Henri Spaak, president of the United Nations General Assembly, to undertake the formation of a new left-wing coalition government. M. Spaak, however, proved likewise unable to satisfy the Liberals. He attempted then, with the Regent's blessing, to form a minority government based on his own party, the Socialists, alone, with the inclusion of some "technicians." Having completed his team on March 14, he presented it, five days later, to the new Chamber with the words, "If you think you can quickly give the nation a government other than that now before you, stronger and based on a stable majority, do not hesitate to turn us out." This the House promptly did at the first test vote, on March 20.

After De Schryver once more had tried and failed, Prince Charles turned again to the former Premier Van Acker, who eventually succeeded in putting together a new coalition Cabinet composed of six Socialists, six Liberals, four Communists, and three independents. The Cabinet was approved by the Chamber on April 4, and by the Senate on April 11, in the latter by a majority of only two votes.

Government on a Razor's Edge. The political crisis —one of the longest in Belgian history—was solved, but the underlying problems remained unsettled and a relapse into the former state of instability was apt to occur at any moment. Van Acker, therefore, made it clear to the three parties supporting him that he would ask for a grant of special powers, so that his Cabinet would not be in daily risk of being overthrown on any pretext at hand.

The Chamber granted him these special powers, which were mainly in the economic and financial fields, but only because the moderate Liberal party, with its disproportionately large representation in the Cabinet had a solid grip on economic affairs, thus making any Socialistic experiments impossible.

Even so the new government, with its razor-thin majority in the Senate, and an uncomfortably small one in the Chamber, remained constantly at the mercy of a chance adverse vote.

It weathered a serious storm in May, when its refusal to grant wage increases caused a series of strikes, especially among coal miners and longshoremen, and a threatened general strike was narrowly averted.

It also came unscathed through a new crisis over Leopold, in June, when it turned down a formal request by the King that his wartime responsibilities be examined by a special nonparliamentary commission.

But it stumbled and fell, on July 9, over an issue so unimportant and obscure that hardly anyone outside of Belgium could understand what the new crisis was about. Briefly, there had arisen a controversy between the Minister of Justice, Adolphe van Glabbeke, a Liberal, and an influential Socialist Senator, Henri Rollin, who charged the former with illegal intervention in a treason case pending before a military court. Premier Van Acker backed his Minister of Justice and demanded a vote of confidence, from which Rollin and two other Socialists abstained, with the result that the Senate by a majority of one vote denied the expression of confidence sought by the Government. The latter thereby was compelled to resign.

Again the crisis lasted for several weeks, following pretty much the same course as the earlier one. Finally, on August 6, a new three-party coalition Cabinet, this time headed by the veteran Socialist leader Camille Huysmans, presented itself before Parliament and was approved by a slender majority. Originally considered a stop-gap government only, it nevertheless outlasted its predecessors during the year. The composition, policies, and practices of the new Cabinet were virtually identical with those of the outgoing government.

Municipal elections were held throughout Belgium on Nov. 24, 1946, in which women for the first time were allowed to participate. Contrary to general expectation, the feminine vote did not materially affect the political balance, which remained as precarious as before. The Christian Socialists made some gains, particularly in the big cities, but their success was inconclusive. The Liberals managed to recoup some of their losses sustained at the February poll.

On Nov. 28, the government narrowly escaped defeat in the Senate when a budgetary measure proposed by the Communist Reconstruction Minister Jean Terfve was defeated by an 82–82 vote, two government supporters being absent due to illness. When the Cabinet refused to admit that a tie-vote was tantamount to a vote of no-confidence, the Christian Socialist Senators walked out in protest. The crisis, however, was again smoothed over and the Huysmans Cabinet remained in power through the end of the year.

Economic Prosperity. With all this political instability, Belgium remained in the forefront of those relatively few European countries which were able to recover quickly from the effects of war and occupation. Even at the start of the year Premier Van Acker was in a position to state that Belgium had "the best production of coal, gas and electricity, the best output of textiles, the best food, the best financial situation, the most orthodox budget, and the best public-debt position" of any liberated country in Europe.

In spite of recurring strikes and high prices, this economic recovery was not only sustained, but improved during the year. The threat of inflation, which loomed large in the spring, was effectively banned by Van Acker's strict price and salary policy and through drastic taxation, syphoning off excessive purchasing power.

By the end of the year, production had reached, or was approaching, pre-war levels in many fields; there was virtually no unemployment. Inbound shipping in the port of Antwerp, during the first nine months of 1946, reached 5,880,000 tons, as compared with 6,840,000 for the same period in 1938. On the other hand, outbound cargo totaled only 1,330,000 tons during the same period, or

approximately 20 percent of the pre-war figure. This disparity reflected the government's policy of priming the national economy through generous imports of raw materials for industrial use, and of enough consumers' goods to prevent uncontrollable price rises. It naturally placed a heavy strain on the country's foreign exchange reserves, but the Government hoped to build these up again through a subsequent increase in exports. However, a large portion of the gap between the figures for outbound shipping in 1938 and in 1946 was accounted for by the complete absence of shipments from Germany, which in peacetime made up a substantial part of Antwerp's harbor traffic.

Belgium's once large and profitable tourist trade did not resume in 1946 to the anticipated extent, but remained at about 10 percent of prewar levels. This was due chiefly to the high cost of living, which caused prospective tourists, especially the British, to go to Switzerland or other countries rather than pay the prohibitive prices currently asked during the year 1946 at the once popular Belgian resorts.

Belgium's Role in World Affairs. Under the guidance of its able and energetic Foreign Minister Spaak, who was retained in this capacity in the successive Cabinets, Belgium in 1946 again played an active role in international affairs.

In August, at the Paris Peace Conference, M. Spaak strongly urged the Big Four to abide by any recommendations made by a two-thirds majority of the delegates; his stand was heartily endorsed by Secretary of State Byrnes on behalf of the United States.

On September 8, Spaak expressed whole-hearted approval of the policy toward Germany set forth by Secretary Byrnes in his Stuttgart address; M. Spaak also called on Soviet Russia to be less mysterious, and more cooperative in her European policies.

Along with the governments of the Netherlands and Luxemburg, the Belgian Government on November 1 asked the Big Four for a voice in the forthcoming German peace settlement "from the beginning."

Belgium also made positive contributions to the work of the United Nations. In October, she submitted for approval by the General Assembly a draft trusteeship agreement governing her African mandate of Ruanda-Urundi.

Twice during the year, Belgium's long-standing dispute with Franco Spain over the protection given by that country to the Belgian Fascist leader Léon Degrelle was brought up before the United Nations. In May, Foreign Minister Spaak charged in a note to the Security Council that Spain had become a haven for former Axis agents and that "the collusion of the Spanish Government with these elements is likely to call into being a dangerous center of agitation against the nations which won the war."

On August 22, Degrelle disappeared from Spain under circumstances which strongly suggested that the Spanish Government had helped him to escape to an overseas destination, as charged in a Belgian note of September 4. In its reply the Spanish Government admitted knowledge of Degrelle's whereabouts, but it refused to divulge this information "out of courtesy to the country in which he is now residing and which might be brought into conflict with Belgium." In mid-October, the Belgian Government lodged a new protest with the United Nations, in which it accused the Franco regime of "publicly and officially" helping to hide the notorious traitor.

Meanwhile, Degrelle's wife Marie had been brought to trial before a Brussels court which, on May 14, sentenced her to a ten-year prison term on charges of having been an active collaborationist in her own right.

Production. Previous to the war Belgium's manufacturing, mining, intensive agriculture, and extensive foreign commerce enabled it to support one of the densest populations of Europe (712 per square mile on December 31, 1938). The area under cultivation was substantially expanded in 1941 and 1942, but showed a marked decrease in 1944 and 1945. Leading crops are wheat, rye, oats, potatoes, and sugar beets. Production of meat fell in 1944 to less than one-third of the prewar output; that of butter, margarine, and sugar also showed a marked decrease. Belgium possesses large mineral resources, especially coal, iron, and zinc ores. The annual output of coal was reduced from 23,742,966 metric tons in 1943 to 13,504,950 in 1944. Belgium was also an important prewar producer of glass, paper, cardboard, cement, cotton yarn, rayon, metal products, alcoholic beverages, etc.

Foreign Trade. Belgium's foreign commerce in terms of money was drastically reduced during the war, from an average of 3,700,000,000 francs per month in 1939 to 750,000,000 francs in 1944. The decrease in quantity was even greater, if the rise of prices during that period is taken into account. Imports in 1944 averaged 305,000,000 francs a month, exports 452,000,000.

Finance. Revenue for 1945 was estimated at 16,000 million francs and expenditures at 40,000 million francs. The Belgian franc was fixed at 176.6 to the £ sterling on October 5, 1944. Belgium's domestic debt, rising steadily, reached 187,000 million francs in September, 1945.

JOACHIM JOESTEN.

BERMUDA. A British colony in the Atlantic, 677 miles southeast of New York. The Bermuda area includes some 360 islands, of which about 20 are inhabited. Area, 19.3 square miles. Population (1944 estimate) 33,925. Capital, Hamilton. The colony is administered by a governor, assisted by an executive council and a legislative council, both consisting of appointed members, and an elected House of Assembly of 36 members. Women received the vote in 1944.

In January, 1946, the Assembly and the Legislative Council passed a railway purchase bill for the nationalization of the railway system. In August the Legislative Council passed the motor car bill, yielding to the House of Assembly after a controversy of several years, and the use of motor cars in Bermuda was thus legalized after 38 years. Trucks from United States bases had been in operation, however, and charges that they were operated at excessive speeds were brought in the Council while the motor car bill was under consideration. In November, 1946, the Finance Committee recommended to the Assembly the introduction of an income tax in 1947. Bermuda's new Governor and first naval Governor, Admiral Sir Ralph Leatham, reached Hamilton on May 9 and was sworn in on that day.

Tourists are an important source of income in Bermuda. The chief agricultural products are bananas, lily bulbs, potatoes, onions, and green vegetables. At the same time meat, flour, and other food products are imported from the United States and Canada. Customs duties are by far the largest source of revenue. Estimated expenditure in 1945 (£859,800) exceeded revenue (£784,100). Education is compulsory from the ages of 7 to 13.

BIKINI TESTS. The atomic bomb tests at Bikini, known as "Operation Crossroads," were scientific experiments by the United States Government. The general specifications for the tests were laid down by the Joint Chiefs of Staffs, Admirals Leahy and Nimitz, Generals Eisenhower and Spaatz. By their direction, with the approval of the President, the Army and Navy and qualified civilian scientists were joined for the tests to form a unit which was known as Joint Task Force One. The Chiefs of Staff appointed Vice Admiral W. H. P. Blandy, USN, to head the Task Force. A naval officer was chosen to command the Force because the great majority of over 40,000 personnel taking part in the tests were necessarily naval, and nearly 200 ships were involved. Admiral Blandy's staff was composed of top flight civilian, Army, and Navy personnel: Major General W. E. Kepner, AUS, Deputy for Aviation; Rear Admiral W. S. Parsons, USN, Deputy for Technical Direction; Major General A. C. McAuliffe, Ground Forces Advisor; Dr. R. A. Sawyer, Technical Director; Captain J. A. Snackenberg, USN, Chief of Staff; Captain R. Brodie, USN, Assistant Chief of Staff for Personnel; Brigadier General T. J. Betts, AUS, Assistant Chief of Staff for Intelligence; Captain C. H. Lyman, USN, Assistant Chief of Staff for Operations; Brigadier General D. H. Blakelock, AUS, Assistant Chief of Staff for Logistics.

The Mission of Joint Task Force One was primarily to determine the effects of the atomic bomb upon naval vessels, the information to be used for national defense, and the results translated into terms of United States sea power.

The secondary purposes were to afford training for Army Air Forces personnel in attack with the atomic bomb against ships, and to determine the effect of the atomic bomb upon military installations and equipment. The Army Air Forces, making the actual air drop, also participated actively in the air transport, collection of data, observation of results, and test of air force equipment phases of the operation.

The date for the first test was set as May 15, 1946, and later was changed to July 1, 1946, by order of the President. The location, Bikini Atoll in the Marshall Islands, is 2,000 miles southwest of Hawaii. In the lagoon of this atoll—roughly 20 miles long and 10 miles wide—a target fleet of approximately 100 ships, made up of prize German and Japanese ships as well as surplus United States naval vessels was to be anchored. The bomb was to be dropped to explode over target ships at an altitude of several hundred feet.

The second test was to occur tentatively about July 25, or about four to six weeks after the first, depending upon the time needed for rearranging target ships and installing additional instruments. The bomb was to be placed below the surface of the water amidst the target ships. Terrific air blast and heat was predicted when the bomb exploded, as well as heavy underwater pressures, shock to the hulls of the ships, and very high waves.

The third and final test was to be held in 1947, with the target ships in the open sea, as the bomb was to be exploded at a depth impossible to attain in a harbor. The more difficult technical preparations for this experiment, including the design, construction, and testing of a bathysphere in which to submerge the bomb to a great depth, and the means for keeping the target ships in position on the open ocean, made it impossible to hold this third phase during the same period as the first two. This test, however, was canceled on September 6, 1946.

By March 11, 1946, Bikini Atoll was completely evacuated of its native population of 167 men, women, and children, who were moved to Rongerik Atoll, a previously uninhabited island 109 miles east of Bikini, in the Marshall Islands.

In January, 1946, one of the Navy's surveying vessels left San Francisco with a party of oceanographers, biologists, and geologists to conduct a thorough investigation of the Bikini Atoll. Hydrographic surveys were made to check and extend captured Japanese charts. Coral heads or peaks were blasted to permit placing of ships at specified locations.

The observation of animals, under the direction of Captain R. Harold Draeger, Medical Corps, USN, (working from the Naval Medical Research Institute at Bethesda, Maryland), was to supply vital data. The animals to be placed under observation included 200 goats, 200 pigs, and approximately 4,000 rats. Just prior to the dropping of the first atomic bomb, they were distributed aboard 22 target ships in positions normally occupied by the ships' crews.

The *USS Burleson*, Navy attack transport, was equipped with elaborate laboratories for studying the biological effects of various types of blast injuries—air blast, water blast, solid blast, and radiation blast, plus secondary effects the bomb might have on personnel.

Some of the goats were covered with anti-flash creams for thermo-heat tests; others were clipped to hair lengths similar to that of humans. Blood studies were made on the animals before and after the tests. Radiation sickness was studied and treated in various stages to determine the best methods of therapy. The animals were tattooed and notched for accurate records. Kept under constant observation they were eventually brought back to the Naval Medical Research Institute at Bethesda where studies are being continued until their natural deaths. What scientists know of X-ray burns formed the basis of the study of the radiation blast. The radiation blast from the atomic bomb knocks out bone marrow and affects the spleen (the basis of the white blood cells).

Other tests were made with the use of vaccines, viruses, toxins, antisera, bacteriophage, hormones, and vitamins. The effects on medical and dental equipment and supplies were also studied.

The scientific program called for an oceanographic and biological survey of Bikini Atoll and surrounding areas for six weeks, beginning early in March. The survey also included an inventory of the kinds and quantities of fish which was used as a basis of comparison for studies of the effects of the explosions.

Sea disturbances were studied in detail. The reactions of the waves and surf, which contained valuable information, were studied as an aid to amphibious operations during the war. More than 100 instruments of a dozen different types, weighing nearly 40 tons with their tackle, were used by the wave measurement staff of 33 oceanographic engineers and other specialists. Much of the equipment was of new type designed and constructed especially for the test. It was installed on airplanes, islands, ships, and the sea bottom to determine the height, speed and length of the waves generated by the blast.

Instruments on special buoys made an automatic record of the changing distance to the ocean floor as the waves went by. A network of recording pressure meters were placed on the bottom of the lagoon to determine the pressure caused by the waves, from which the height of the waves was

then calculated. Aerial cameras, installed on towers and in airplanes and operated by remote control, photographed the waves every second until the disturbance died out. Some cameras were equipped so that they were started by the light from the bomb burst. Seismographs on the island of the atoll recorded the effect of the bomb and of any submarine landslides caused by the explosion.

Special wave recorders on more distant atolls, such as Kwajalein, were installed to detect the minute wave effects which might be produced at such distances.

The target ships were to be so placed that there would be graduations of damage from maximum to negligible. The ships that were sunk contributed valuable information. Some of this was obtained by aerial photography, indicating the character of the damage and the time required to sink. More definite information about damage was obtained by divers and underwater photographs. In the next group would be ships which were severely damaged but did not sink. It was from these heavily damaged ships that the greatest amount of important technical information was obtained. Finally there were ships placed so far from the explosion that they received only minor damage, or none at all.

To gather information, about 1,000 scientists and their assistants utilized 7,000 instruments of measurement and record to make these tests among the most thoroughly analyzed experiments that have ever been held. The Instrumentation Group under Admiral Parsons and Dr. R. A. Sawyer installed the thousands of devices that recorded the detonation of the atomic bomb, graphically, photographically, electronically, and radiometrically.

The first problem of measurement was to measure the bomb as a bomb. That is, to measure it as TNT, or any other high explosive, for blast, pressure, shock, heat, and fragmentation. The second problem was to record the bomb's effect on the ships. The unique problem that existed in the case of ships, as contrasted with cities and other land targets, is that while no building stands a thirty degree roll a ship is built to stand such a roll. The third problem concerned the oceanographic factors of wave motion, seismic changes, wave patterns, currents, and changes in the ecology, or equilibria among living things in the area. The fourth and last problem of measurement was concerned with the energy released by the atomic bombs in terms of electrical changes in the atmosphere in radiometry, radiation, and radioactivity. Very little data has been released concerning these headings. Scientists of the Los Alamos Laboratory of the Manhattan Engineer District worked with other scientific laboratories of the Army and Navy on this problem.

A number of converted LCVPs were completely equipped for drone operation, including radio-controlled pumps. Two drones were controlled jointly by an Avenger torpedo bomber from the USS *Shangri-La,* which flew outside the danger area, and by a mother ship, an old-type destroyer, cruising outside the lagoon. When Geiger counters installed aboard the boats indicated that the drones were in the area of greatest radioactivity, a special radio-control aboard the mother ship started the drones' pumps lifting samples from the water's surface. They then made radiological reconnaissance throughout the contaminated lagoon waters to determine when it was safe for damage control crews to enter the area.

Some of the drones were sent into and through the huge pillar of smoke from the explosion to obtain data as to the nature, physical properties, and effects of the blast and its attendant smoke column. Cameras trained on the televised image of instruments in the drone provided a permanent recording on film of instrument readings.

The greatest battery of cameras ever assembled —four hundred and fifty, exclusive of press cameras—took approximately 50,000 stills and 1,500,000 feet of movie films of the bomb tests. The world's largest aerial camera was used—a modified AAF K-18 five feet long, equipped with a 48-inch telephoto lens, and capable of recording legibly on film the dial of a wrist watch photographed a quarter of a mile away.

The placement of the cameras was a problem, for they had to be protected from the force of the atomic explosion and accompanying radioactivity. The solution was to place the cameras in three locations, on six 75-foot steel towers, installed on three islands of the Bikini Atoll, on target and observer ships, and in aircraft.

Test Able. During June the target ships were placed in position for the first test; instruments were installed and all phases of the experiment were made ready. Daily weather conferences were held, and on June 30 the aerologists predicted a fine day for July 1. Accordingly, on June 30 more than a hundred ships of the task force stood out to sea, each to remain within an assigned area.

At 8:45 a.m. the bombing plane, the B-29 "Dave's Dream" began its bombing run. Throughout the entire task force the tension mounted for although scientists had predicted what would happen, no one was quite certain what the results would be.

Atomic fury broke over Bikini lagoon at 9 a.m. as the world's fourth atomic bomb detonated. There was a ball of fire that broke over the lagoon, a ball of fire with electric sparks on the edges, bright and dazzling like an angry sun. Another followed it, so quickly, so transitory, that the second burst seemed like an illusion. Both these bursts of giant balls of fire illuminated Bikini.

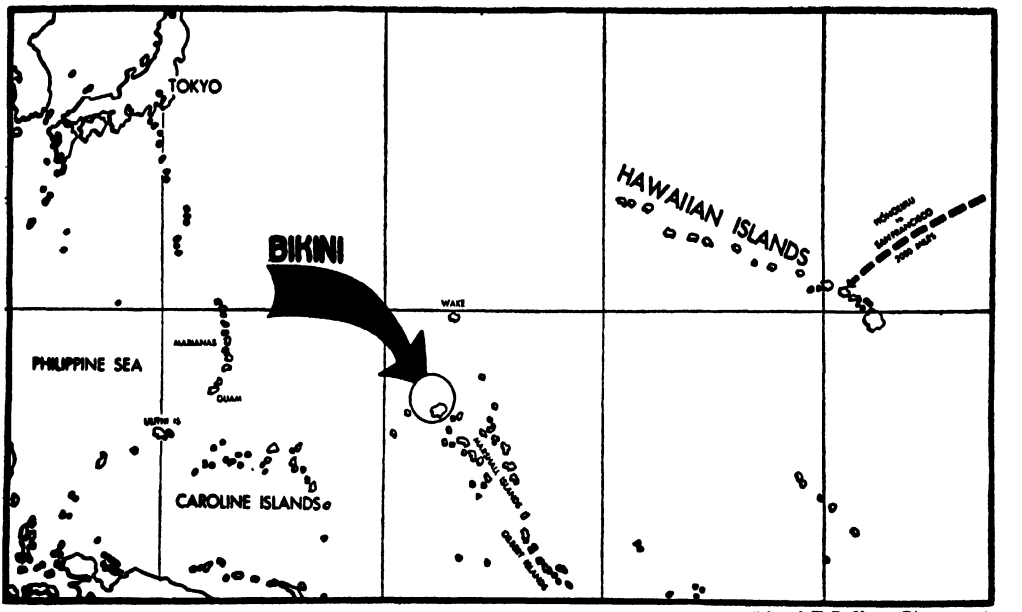
The atomic cloud that followed churned upward thousands of feet in seconds. The cloud was brown with white patches at first. Then it began an amazing transformation in colors and shapes. It seemed to steam and boil and churn at the bottom. There it turned white. It was pinkish in the middle, salmon colored at the top.

In less than two minutes it climbed over 20,000 feet. The mushroom broke out suddenly at the top and the cloud changed colors. It was a fascinating picture. Then it broke into two mushrooms, the second one a quarter of the way from the crest. All this time the trade winds were driving it hard. In thirty minutes the cloud began to disintegrate into a crazy pattern of Z's. In an hour, the wind had so battered it that it was hard to recognize.

Late in the afternoon the ships of the inspection fleet reentered the lagoon and task force personnel began the huge task of assembling and analysing the results of Test Able.

Test Baker. For the second test, the bomb was suspended in the water from a small LSM, designed originally to land tanks on an open beach. This little ship had been altered to provide a well in the bottom through which the caisson containing the bomb could be lowered.

As in Test Able, the "last-minute" men from the ships and islands were collected at dawn. This time there was another job to be done. The various devices for firing the bomb on board the LSM has to be checked and set. A clockwork mechanism actuated by more than one clock, made it impos-



Official U.S. Navy Photograph

SCENE OF BIKINI ATOM BOMB TESTS

sible to fire the bomb before a certain time, nor after a certain later time. Furthermore, stray radio signals could not explode the bomb. Certain specific signals sent on the required frequencies and in the intended sequence, were necessary. All these timing signals were sent from a specially equipped ship.

These early morning operations determined "H" hour for the explosion. It was low tide at 7:20 a.m. and it was desired to detonate the bomb as soon after this time as possible, to minimize the waves reaching the islands. 8:35 a.m. was the earliest time that could be arranged, and as it happened, the bomb was exploded at exactly that time.

The fantastic power and heat of the world's fifth atomic bomb churned Bikini lagoon into a cauldron of flame and smoke and steam which completely obscured the fate of ships lying at anchor.

The massive burst was a spectacular thing to see, for the lagoon was calm and placid one moment and then next came the great spout of water, smoke and vapor shooting into the heavens. Mighty waves rose with the blast, but they did not roll over Bikini Island. The column appeared to be a half mile in diameter and appeared to reach a height of five to six thousand feet.

The water first erupted in a colossal geyser. The column was perfectly rounded and was dark brown in color as it rose into the sky. Then came the second phenomenon of the atomic underwater burst. Suddenly, from the base of this water column, burst a gigantic domeshaped mushroom of smoke vapor which hung like a cap over the cloud mass, and then disappeared.

All of these things happened in a few seconds, and then from the surface of the sea rose a great mass of steam which covered almost the entire fleet with a white fleece through which it was impossible to see.

Ten minutes after the blast thick white clouds still were hanging over the ships. By 8:45 a.m. the mist over the lagoon was settling and the target array could be made out.

Due to the intense radioactivity of the water in the lagoon many days passed before all of the target ships could be surveyed and scientific data gathered from them.

Results of Test Able. The accuracy of the drop was such that the explosion occurred within the area included within the allowance for the probable error of the elevation of drop, and detonation was probably within 100 feet of the chosen altitude. Nevertheless, the explosion actually occurred several hundred yards west of a point directly above the target ship Nevada and therefore entirely west of the closely spaced array of capital ships.

There were 90 targets anchored in the lagoon when the bomb exploded. These were not in battle formation but were placed in positions to give the largest amount of desired technical information with especially close concentration around the center target point. Those ships anchored a mile or more from the point of drop largely escaped injury. Those within a mile were sunk or suffered damage varying with the distance from the point of detonation and with the type of ship construction. On explosion, a destroyer and two transports sank promptly. A second destroyer and the Japanese cruiser, *Sakawa*, sank within 27 hours. The light carrier, *Independence*, was gutted with fire and resultant explosions. The submarine *Skate* was heavily damaged and later towed away. All of these were near the point of explosion. The other ships, including the only two capital ships which were within one-half mile of the detonation, received damage that would require more or less complete overhaul and in most cases repair at major bases before they could again be used for combat. A study of this damage is helping point the way to changes in design which should minimize damage from blast and heat. Beyond these ships there was extensive damage to superstructure, radar, and fire control.

No wave or blast damage could be noticed on Bikini Island, which is approximately three miles from the point of detonation. In general, the observations on ship damage were confirmed by engineering surveys. The location of the bomb burst,

accurately determined from photographs, was such that only one ship was within 1,000 feet of the surface point over which the bomb exploded. There were about 20 ships within half a mile, all of which were badly damaged, many being put out of action and five sunk. It required up to 12 days to sufficiently repair all of those ships left afloat so that they could have steamed under their own power to a major base for repair.

It is now possible to make some estimate of the radiological injuries which crews would have suffered had they been aboard Test "A" target vessels. Measurements of radiation intensity and a study of animals exposed in ships shows that the initial flash of principal lethal radiations, which are gamma rays and neutrons, would have killed almost all personnel normally stationed aboard the ships centered around the air burst and many others at greater distances. Personnel protected by steel, water, or other dense materials would have been relatively safe in the outlying target vessels. The effects of radiation exposure would not have incapacitated all victims immediately, even some of the most severely affected might have remained at their stations several hours. Thus it is possible that initial efforts at damage control might have kept ships operating, but it is clear that vessels within a mile of an atomic bomb air burst would eventually become inoperative due to crew casualties.

Results of Test Baker. As scheduled, at 0835 Bikini time on July 25, the second bomb was detonated well below the surface of the lagoon. This bomb was suspended from the LSM-60, near the center of the target array. The explosion was of predicted violence and is estimated to have been at least as destructive as 20,000 tons of TNT.

To a degree which was remarkable, the visible phenomena of explosion followed the predictions made by civilian and service phenomenologists attached to Joint Task Force One. At the moment of explosion, a dome, which showed the light of incandescent material within, rose upon the surface of the lagoon. The blast was followed by an opaque cloud which rapidly enveloped about half of the target array. The cloud vanished in about two seconds to reveal, as predicted, a column of ascending water. From some of the photographs it appeared that this column lifted the 26,000-ton battleship *Arkansas* for a brief interval before the vessel plunged to the bottom of the lagoon.

The diameter of the column of water was about 2,200 feet, and it rose to a height of about 5,500 feet. Spray rose to a much greater height. The column reached maximum height, water fell back, forming an expanding cloud of spray which engulfed about half of the target array. Surrounding the base of the column was a wall of foaming water several hundred feet high.

Waves outside the water column, about 1,000 feet from the center of explosion, were 80 to 100 feet in height. These waves rapidly diminished in size as they proceeded outward, the highest wave reaching the beach of Bikini Island being seven feet. Waves did not pass over the island, and no material damage occurred there. Measurements of the underwater shock wave are not yet available. There were not seismic phenomena of significant magnitude.

The explosion produced intense radioactivity in the waters of the lagoon. Radioactivity immediately after the burst is estimated to have been the equivalent of many hundred tons of radium. A few minutes' exposure to this intense radiation at its peak would, within a brief interval, have incapacitated human beings and have resulted in their death.

Great quantities of radioactive water descended upon the ships from the column or were thrown over them by waves. This highly lethal radioactive water constituted such a hazard that after four days it was still unsafe for inspection parties, operating within a well-established safety margin, to spend any useful length of time at the center of the target area or to board ships anchored there.

As in Test "A," the array of target ships for Test "B" did not represent a normal anchorage but was designed instead to obtain the maximum data from a single explosion. Of the 84 ships and small craft in the array, 40 were anchored within one mile and 20 within about one-half mile. Two major ships were sunk, the battleship *Arkansas* immediately and the heavyhulled aircraft carrier *Saratoga* after 7½ hours. A landing ship, a landing craft, and an oiler also sank immediately. The destroyer *Hughes*, in sinking condition, and the transport *Falcon*, badly listing, were later beached. The submerged submarine *Apogon* was sent to the bottom emitting air bubbles and sunk. Five days after the burst, the badly damaged Japanese battleship *Nagato* sank. It was found impossible immediately to assess damage to hulls, power plants and machinery of the target ships because of radioactive contamination. There was no obvious damage to ships more than one-half mile from the burst.

Observations and Conclusions, Both Tests. The operations of Joint Task Force One in conducting the tests set a pattern for close, effective cooperation of the Armed Services and civilian scientists in the planning and execution of this highly technical operation. Moreover, the tests provided valuable training of personnel in joint operations requiring great precision and coordination of effort.

It is impossible to evaluate an atomic burst in terms of conventional explosives. As to detonation and blast effects, where the largest bomb of the past was effective within a radius of a few hundred feet, the atomic bomb's effectiveness was measured in thousands of feet. However, the radiological effects have no parallel in conventional weapons. It is necessary that a conventional bomb score a direct hit or a near miss of not more than a few feet to cause significant damage to a battleship. At Bikini the second bomb, bursting under water, sank a battleship immediately at a distance of well over 500 feet. It damaged an aircraft carrier so that it sank in a few hours, while another battleship sank after five days. The first bomb, bursting in air, did great harm to the superstructures of major ships within a half-mile radius, but did only minor damage to their hulls. No ship within a mile of either burst could have escaped without some damage to itself and serious injury to a large number of its crew.

Although lethal results might have been more or less equivalent, the radiological phenomena accompanying the two bursts were markedly different. In the case of the air-burst bomb, it seems certain that unprotected personnel within one mile would have suffered high casualties by intense neutrons and gamma radiation as well as by blast and heat. Those surviving immediate effects would not have been menaced by radioactivity persisting after the burst.

In the case of the underwater explosion, the air-burst wave was far less intense and there was no heat wave of significance. Moreover, because of the absorption of neutrons and gamma rays by water, the lethal quality of the first flash of radiation was not of high order. But the second bomb threw large masses of highly radioactive water onto the decks and into the hulls of vessels. These contaminated

ships became radioactive stoves, and would have burned all living things aboard them with invisible and painless but deadly radiation.

Observations during the two tests have established the general types and range of effectiveness of air and shallow underwater atomic-bomb bursts on naval vessels, army material, including a wide variety of Quartermaster stores, and personnel. From these observations and from instrumental data it is now possible to outline such changes, not only in military and naval design but also in strategy and tactics, as future events may indicate. See separate articles on ATOMIC ENERGY, MILITARY PROGRESS, NAVAL PROGRESS, and PHYSICS.

W. JEROME HAGERTY.

BILLIARDS. Irving Crane of Livonia, New York, a former champion, regained world pocket billiard honors when he led a field of eight cue artists at Philadelphia last December. Winning six of his seven matches, Crane dethroned Willie Mosconi, Barrington (New Jersey) master, who was the runner-up. Earlier in the year, Mosconi had successfully defended the title by defeating Jimmy Caras of Wilmington, Delaware, 8,727–7,508, in a cross-country challenge match.

No play was held for the world three-cushion crown worn by Welker Cochran of San Francisco. Biggest event of the year in that type of competition was the 1,000-point match between Willie Hoppe, the aging Boy Wonder, and Jake Schaefer, Chicago ace, Hoppe winning by 1,000–788.

Edward Lee of New York did not defend his national amateur three-cushion laurels last Winter and that title went to Robert Lord of Chicago.

THOMAS V. HANEY.

BIRTH CONTROL. In the first full year after the end of the war, planned parenthood was increasingly recognized as an important ingredient in peace. The reason was expressed succinctly by Dr. Djamil Tutunji, Director of Public Health of Transjordania, speaking before the International Health Conference of the United Nations in New York.

"The control of the birth rate," said Dr. Tutunji, "is as important as the control of the atomic bomb."

While the atomic bomb received more attention, the progress of planned parenthood in all its various aspects—birth control, treatment for infertility and education for marriage—was considerable. As a program to help people to meet the requirements of modern life, it had come of age with the Planned Parenthood Federation of America preparing to launch a campaign to raise $2,000,000 to expand its services and those of the 33 state leagues and 350 local committees, affiliated with it.

Medical and Clerical Support. The growth of planned parenthood as a factor in family well-being and community security was stimulated by the support which it received during the year from professional groups. An outstanding example of this was a resolution signed by 3,200 Protestant and Jewish clergymen from every state in the union, endorsing planned parenthood services and urging their adoption by hospitals and other health and welfare organizations in every community.

The clergymen took the stand that it was a "fundamental democratic right" for them to insist that these services be supplied. The signers included a great many nationally known religious leaders.

Also during the year the Committee on Public Health Relations of the New York Academy of Medicine announced the results of a survey which it had made of contraceptive services in New York City. It found that only five hospitals had contraceptive clinics, and that they were so little used that a single Planned Parenthood center, the Margaret Sanger Research Bureau, assisted twenty-five times as many patients as all five hospitals put together.

The report of the committee, therefore, recommended that private physicians, hospitals and health authorities should assume the responsibility for providing contraceptive advice when it is medically justified. The report also recommended improvement in teaching child spacing methods in medical schools. The recommendations were approved by the Council of the Academy.

Expansion of Services. During 1946, Virginia and Mississippi incorporated child spacing information into their public health programs. This brought to seven the number of states which offer this service to their people. The others are North and South Carolina, Alabama, Florida, and Texas. Massachusetts and Connecticut remain the only two states in which contraceptive information, even by a physician to his patient for obvious health reasons, is illegal.

Despite the curtailment of the program dictated by war conditions, the total number of centers in the country stood at 568. This was just thirty years after Margaret Sanger established the first American birth control clinic in Brooklyn in 1916.

The service offered by many of these clinics was also expanding. One of the comparatively new fields was treatment for infertility, which was being undertaken in a number of centers. During the year the Connecticut Planned Parenthood League made a grant of $2,500 to Yale University for infertility research.

Marriage counseling and sex education were also expanded as part of the general planned parenthood program. Increasing recognition was given to the importance of this program in developing mental hygiene and in combatting juvenile delinquency. It was significant that a representative of the Planned Parenthood Federation took part in the conference on juvenile delinquency called by the Department of Justice in Washington.

The Federation, which remained the principal advocate of child spacing, continued an extensive public information program. The need for such work was emphasized by the fact that many people still erroneously believed it was illegal to give contraceptive information. This is true only in the two states mentioned before.

During 1946, therefore, the Federation distributed hundreds of thousands of pamphlets, sponsored dozens of magazine articles and radio programs, prepared a slide film for popular use and was represented at dozens of conferences.

The Federation's referral service lists 3,000 physicians to whom inquiries can be directed. This is an important phase of the program, since the Federation receives thousands of letters from parents and prospective parents in areas where no clinical service is available.

International Developments. The first international gathering on family planning since 1930 was held August 23–26 in Stockholm at the invitation of the Swedish National Association for Sexual Education. The three Scandinavian countries, Finland, England, the Netherlands, and the United States were represented. Margaret Sanger headed the delegation of four from this country. Resolutions were adopted declaring:

(1) That it is the right of parents to decide the number of their children;

(2) That it is the right of the people to obtain scientific information on control of conception;
(3) That it is the right of youth to receive scientific sex information as part of general education;
(4) That institutions of higher education should train educators for this work;
(5) That there is an urgent need for scientific research in the field of human fertility and the development of reliable and universally applicable contraceptive methods

Reports at the conference showed the status of birth control in various countries. Family planning organizations were abolished in the Netherlands, Norway, and Denmark by the German invasion. They are being restored in the first two. England has 57 clinics under the auspices of the Family Planning Association and several Mothers' Clinics established by Dr. Marie Stopes. The Swedish Association has a large membership and three clinical centers. There was no organized birth control or marriage education work in Finland, but the Finnish delegate, Dr. Leo Kaprio, reported that he had been carrying on an active program himself. All of the European countries were handicapped by lack of supplies.

D. KENNETH ROSE.

BOBSLEDDING. One of the most picturesque of the Winter sports, bobsledding, which had been inactive since 1942, was resumed last year when Lake Placid's big Olympic run on Mount Van Hoevenberg was reopened. Looking ahead to the Olympic games, and with utter disdain for the dangers to life and limb, the most daring of our American drivers furnished many week end and holiday thrills for Winter sports enthusiasts.

Star driver of the season was Bill Linney, who capped the best year of his colorful career by piloting the Republic Miners of Iron Mountain, New York, to the national A.A.U. 4-man championship. His team-mates were Bill Stacavich, Rufus Brickey and Tom Hicks. The Miners, with Linney in the driver's seat, also listed victories in the North American and Lowell Thomas International Trophy races among their achievements last Winter.

Tuffield Latour and Dick Morse of the Saranac Lake Bobsled Club won 2-man laurels in both the A.A.U. and North American tests and Stanley Benham piloted Lake Placid B.C. teams to triumphs in the national A.A.U. junior 2-man and 4-man events.

THOMAS V. HANEY.

BOK FOUNDATION, The Mary Louise Curtis. A philanthropic organization which has as its principal activity the support of the Curtis Institute of Music in Philadelphia. Grants have also been made to the Settlement Music School, Philadelphia, and the Research Studio, Maitland, Florida, the latter being a kind of "laboratory" for painting. Financed by gifts of $12,500,000 from Mrs. Mary Curtis Zimbalist, the Foundation was created in 1931 for the support of music, fine arts, science, invention, or general education. Address: 1726 Locust Street, Philadelphia 3, Pennsylvania.

BOLIVIA. A republic of South America. Area: 416,040 square miles. Population 3,595,700 (1943). Capital: Sucre is the seat of the Supreme Court and nominally the capital, but La Paz, the largest city, is the actual seat of the Government.

About three-fifths of Bolivia is composed of tropical lowlands, the remainder of high plateaus and mountains. Humid tropical climate prevails in the lowlands, temperate in the plateau areas, and varying extremes of cold at altitudes above 13,000 feet.

Government. Bolivia is a centralized republic of 9 Departments, under the Constitution of 1938, which was amended by a Constituent Assembly elected in July 1944. The Constitution provides for a bi-cameral Congress: a Senate of 27 members (3 from each Department), elected for 6-year terms one-third elected every 2 years; and a Chamber of Deputies of 110 members, elected for 4-year terms, one-half retiring every 2 years. Regular sessions of the Congress open on August 6 of each year for a 60-day period, which may be extended to 90 days when desired. The President is elected for a 6-year term, and is assisted by a Cabinet of 9 ministers.

Events, 1946. Bolivia was torn by a violent and victorious revolution on July 21 that overthrew the Government of President Gualberto Villarroel, who was killed and hanged from a lamppost in La Paz after being thwarted in his last moment attempt to escape by airplane to Chile. The revolt, which had been festering for several months, culminated a week-long series of abortive uprisings and severe repressive measures by the Government.

President Villarroel's name rose to uneasy prominence in March when the United States Blue Book on Argentina accused Argentine-Axis forces of steering the President into power during a revolution that was allegedly instigated by Victor Paz Estenssoro, Finance Minister and head of the Government MNR (Movimiento Nacionalista Revolucionario) party. In December, 1943, Villarroel led a military coup of army officers and the MNR party that deposed the Government of General Enrique Pañaranda and established a revolutionary junta. Later, the junta was dissolved and a Constituent Assembly, with an MNR majority, elected Villarroel Constitutional President in 1944.

Independent Bolivian newspapers picked the Blue Book as a cue and fruitlessly demanded that MNR representatives leave the Cabinet. Villarroel attempted to quiet the dissatisfaction with an announcement that all political refugees, including former President Pañaranda, were free to return to Bolivia. The invitation was ignored and José Antonio Arze, leader of the opposition PIR party, continued to maintain his "Democratic Anti-Fascist Committee of Bolivian Exiles Residing in Chile" whose ultimate aim was "to extirpate Nazi-Fascism in Bolivia and to establish an effectual democratic regime."

Familiar signs of Government-public dissonance were further evident. In the early morning of April 22 troop movement and gun-fire echoed in the streets of La Paz. On April 29 Villarroel summoned the editors of the opposition newspaper to the Presidential Palace and informed them he was aware of a conspiracy and was capable of stamping out any revolt. During the next two days the Government arrested several oppositionists and clamped strict censorship on newspapers.

The arrests were accompanied on April 30 by an official communique stating that a coup, aimed to prevent the May 5 elections for renewal of half the Chamber of Deputies and one-third of the Senate, was frustrated. During this situation, the communique said, "indispensable security measures have been kept to a minimum, without affecting the atmosphere of freedom required for the election." The opposition Democratic Front immediately announced their refusal to participate in the elections.

A state of siege, suspending all Constitutional liberties, was established on May 30 after Villarroel claimed the discovery of another plot. The May 5 Congressional elections resulted in a landslide victory for the MNR. The Government prohibited all political meeting on June 4 and engaged in a further wave of political arrests, which in-

cluded Senator Waldo Belmonte, leader of the Republican Socialist Party; Enrique Hertzog, leader of the "Genuine" Republican Party; Julio César Canelas, publisher of *El Diario*, and Jorge Candeo Reyes, publisher of *Ultima Hora*.

Uprisings flared on June 14 and 18 as army officers who tried to capture airfields in the La Paz area were captured or killed by Government forces and civilians armed for the occasion. During this June period of sanguinary fighting, censorship on all forms of communication hid the details of the revolt from the outside world. *La Razon* and *Ultima Hora* were branded organs of sedition by the Government which thereupon nationalized both newspapers.

During the mounting opposition to the Villarroel regime, the political antagonism was doubly irritated by a serious currency inflation and a rising cost of living. On July 13 a demonstration by school teachers, who were striking for higher wages, was joined by university students. As the crowds moved through the La Paz streets, the police opened fire. The revolutionary force, led by university students and swelled by an estimated 35,000 members of the Workers' Federation, gathered momentum. Crowds stood before the Presidential Palace shouting for a civilian Government. By the 20th of July La Paz was gripped by a full-scale revolt. Villarroel tried to placate the crowds by appointing a new Cabinet, composed entirely of military officers. On the 21st, thousands of people, some armed, swarmed through the streets of the capital and captured arsenals in the City Hall and the municipal transport headquarters. As the crowds prepared to storm the Presidential Palace, Villarroel attempted to discourage action by submitting his resignation to General Damaso Arenas, Chief of Staff. At the last moment the army deserted Villarroel and the revolutionists fought their way into the Palace, shot Villarroel and hanged his body in the streets.

Fighting continued throughout the 21st, with the dead toll rising to 260 and the wounded to 520. After the first successful phase of the revolution, bands seized weapons from the Government strongholds and deployed throughout the city and its environs, seeking leading officials who escaped.

On the night of the revolution, members of the Supreme Court, the principal of the National University, and student and labor leaders met and announced the formation of a Provisional Government headed by Nestor Guillen, dean of the Supreme Court for the La Paz district. In its second day in power, the new regime announced that it would adhere to the Bolivian Constitution, observe international treaties, and respect native and foreign capital. At the same time, it assured the populace that ample preparations had been made for any counter-revolt, especially from the tin miners, who were reportedly unsympathetic to the revolution. The new regime included in its junta Luis Gozálvez, professor at the National University and representative of the students; Dr. Amiceto Solares, President of the University of Sucre and representative of the teachers, and Aurelio Alcoba, representative of the workers. All members of the military were barred from public office.

On July 24 the tin miners, the largest single labor group in Bolivia, fully endorsed the new Government.

Within three weeks of the revolution, the new Government was given recognition by Cuba, Venezuela, Uruguay, Chile, Peru, Paraguay, Argentina, and the United States. Relations between Bolivia and the United States were strengthened during August by a new tin agreement which raised the price of the ore above the level set by the previous contract. The pack provided for shipments of 18,000 tons of tin during 1946 and increased the price one-half a cent per pound over the all-time high of 65 cents in 1944.

Diplomatic complications arose after most of the deposed Cabinet and Government officials fled to the Latin American Embassies, which traditionally offer sanctuary to political refugees. The revolutionary junta's demands for the return of important Cabinet members to stand trial was refused. After a month's discussion, fifteen of the refugees were given safe conduct passes out of the country, but twenty-one others remained in the Embassies.

Regular elections were scheduled for January 4 and on August 17, a new Government was drawn up under Provisional President Tomás Monje, Supreme Court Justice and a political moderate. The composition of the Cabinet was: Foreign Affairs, Aniceto Solares; Treasury, Luis Gozálvez; Interior, Roberto Bilbao; Labor, Aurelio Alcoba; Defense, Julio César Canelas; Agriculture, José Saavedra Suárez; Economy, Eduardo Sáenz García; Public Works, Carlos Muñoz Roldán; Education, Manuel Elías.

The lamppost that was used to hang Villarroel was used again on September 27 when an angry mob lynched a former army lieutenant, Luis Oblitaz Bustamonte, after he attempted to assassinate President Monje. The would-be assassin burst into the President's office, shot his secretary, and threatened the President with a pistol as he was captured by the police. After hanging Oblitaz, the mob smashed into a jail, seized José Escobar and Jorge Eguino, police chiefs under Villarroel, and dragged them to a public square where they were hanged.

Preparations for the Presidential elections began on September 29 when the Liberal party sent notes to all political parties asking them to support the candidacy of Monje. The Liberal party asked party leaders to abstain from entering a candidate, since political fighting "at these exceptional moments would be suicide for our democracy." On November 1 the "Genuine" Republican, the Socialist Republican, and the Socialist parties nominated Enrique Hertzog, former Minister of War and Finance, as their Presidential candidate. After repeated statements by President Monje to the effect that he would not consider a nomination for President in the forthcoming elections, the Liberals chose Luis Fernando Guachalla, former Ambassador to Washington, as their Presidential candidate.

The overthrow of Villarroel brought a dangerous food crisis to Bolivia. Between July and October, Argentina, upon whom Bolivia depended for 70 percent of its foodstuffs, including grain, meat, and other staples, cut off all food supplies to Bolivia, except about 10 percent of the usual meat shipments. The Argentine Government blamed the curb on a lack of rolling stock and an oversale of available supplies. During the first post-revolution months, most of Bolivia's wheat and flour needs were met by emergency allocations from the United States. The agreement provided for the shipments of 10,000 tons of flour in August and September and 7,000 tons of flour and 8,000 tons of wheat before December 31.

The Blue Book charge that the Villarroel revolution of 1943 was instigated by Nazis received substantiation on October 29 with the release of an official document found in German archives. The "final" proof, made public by the Bolivian Embassy in Washington, showed that the revolution had been prepared in clandestine conferences between European and South American fascists

who had intended to place the blame on the United States. In elaborating on the procedure for publicizing the revolution, the document said, "When the news of the revolution is received, the German radio and press commentaries should be so worded as to descry the United States as being behind the movement, denouncing the revolutionary leaders as agents in the pay of North American imperialism, who are attempting to make Bolivia into a colony of the United States."

As a reward for their part in the July revolution, the women of Bolivia were offered the right to vote in the January Presidential elections. After meeting in a national convention in mid-November, the women declined the right, saying that they wanted more political education. During the convention, however, they adopted resolutions requesting the Government to include Catholic instruction in public and private schools, forbid the carrying of arms at election time, and postpone their enfranchisement.

The People. Over half of the total population of Bolivia are Indians; 32 percent are of mixed blood; 13 percent are of European descent (chiefly Spanish). Density of population per square mile ranges from 0.6 in the tropical lowlands to 28.5 in the area of Cochabamba. Largest cities are: La Paz, 301,000; Cochabamba, 60,000; and Oruro, 50,000.

Spanish is the official language, but in Indian communities native dialects are spoken.

The State religion is Roman Catholic, but other faiths are freely tolerated.

Primary education is now free and compulsory. In 1944 there were 1,740 elementary schools with a total enrollment of 144,056; 55 secondary schools had a total enrollment of 17,496. There are 6 universities in Bolivia.

National Economy. Mining is the outstanding industry of Bolivia. Tin is the most important mineral produced, although production is expensive because of the complex nature of the ore. During the period 1938–41, minerals constituted more than 90 percent of the total value of Bolivian exports, with tin accounting for about 70 percent. Tin production in 1945 totaled 43,147 tons. Bolivia also produces tungsten, gold, silver, copper, bismuth, lead, antimony, zinc, and petroleum.

Agriculture has not been well developed in Bolivia. About 5 million acres are estimated to be under cultivation. Productivity of the land is low and modern agriculture machinery and methods are not used. Most crops raised in the country are grown for the domestic market, but some dried fruits, coffee, rubber, cinchona, cacao, and nuts are exported, as are some cattle and cattle products.

Lack of cheap power and coal has limited development of industry in Bolivia. What little manufacturing there is, is centered in the Department of La Paz. Industries include processing of foodstuffs and beverages, textiles, furniture, tobacco, glassware, and chemical products.

Foreign Trade. Bolivian exports usually exceed imports. Since Bolivia has no seacoast, all foreign trade is conducted through Argentina, Chile, or Peru, which grant special privileges to Bolivian commodities. In 1944, exports totaled $77,553,968, of which the value of tin amounted to $53,112,692. In that year the United States received $48,957,723 of the total exports; the United Kingdom, $26,206,383; Argentina, $1,884,920.

Bolivian imports consist chiefly of manufactured products. In 1944, imports totaled $42,076,334. Manufactured articles represented 52 percent of the total; foodstuffs and beverages about 27 percent; raw materials some 14 percent. Of total imports for that year the United States provided 33 percent; Argentina, 27 percent; Peru, 15 percent; Chile and the United Kingdom each supplied about 7.5 percent.

JOSEPH P. BLANK.

BONIN ISLANDS (Ogasawara Gunto). An archipelago of 27 islands in the western Pacific, about 550 miles south of Tokyo, Japan. The chief islands are Chichi (10 sq. mi.), Haha, Ani, Ototo, Mei, Yome, Muko, and Nakadachi. Total area: 30 square miles. Population: 6,000 in 1940. Capital: Omura (on Chichi). The principal agricultural crops are sugarcane, pineapples, and bananas. The Bonins passed to the control of United States forces following the surrender of Japan to the Allied nations in 1945.

BOWLING. The fastest growing sport of the past decade showed no signs of a slump in 1946 and despite the lack of materials for new alleys, which would permit even faster gains, bowling continued to add to its legions of followers. The American Bowling Congress championship, a war casualty since 1942, was revived last year and the big show kept Buffalo's Seventy-fourth Regiment Armory humming with activity for 62 days.

Our 1945 match game champion, Joe Wilman of Chicago, captured the important all-events crown with a gross score of 2,054, but Leo Rollick of Santa Monica, California, proved the individual star of the meet. Rollick tallied 737 for singles laurels and placed second to Wilman in the all-events with 2,052, only two pins separating the men. The coast ace also helped the Llo-DaMar Bowl keglers win five-man team honors with its total of 3,023 and added to his bag of prizes by rolling the first and only 300 game of the tourney. The doubles title went to the Buffalo team of John Gworek and Henry Kmidowski, who posted 1,360 on the last day of the long tournament.

Andy Varipapa of Hempstead, L.I., captured the U.S. match game championship for 1946.

THOMAS V. HANEY.

BOXING. The turnstiles sang a merry tune for fight promoters in 1946 for the champions of prewar days returned to the ring to put their titles on the line and provide just the impetus needed to restore boxing to the ranks of big business.

The first heavyweight championship in four years proved unique in that the admission price soared to $100 a ticket for the first time in history —which was a good indication that a new lush era for sports was definitely here. To be sure, the battle was not worth it for Billy Conn, the Pittsburgher who almost dethroned Joe Louis in their first meeting, was no match for the Shuffler in their long-heralded return go at the Yankee Stadium.

A badly scared Conn just ran away from Louis for seven rounds, then Joe tagged him with the same lethal punch that has been the undoing of so many challengers. The fight pooled $1,925,564, plus radio, picture, and television rights that sent the total over the two-million mark.

The financial success of that fiasco apparently called for a retake and before the summer was over Louis had made another successful defense of his crown by knocking out Tami Mauriello in one round. That bout provided one of boxing's biggest thrills of the year, for the Bronx Fighter opened the battle with a "sneak" punch that sent Joe staggering across the ring and threw a scare into the fans. However, Louis—real champion that he is—recovered quickly to knock out his shorter foe. As the year ended there was not a heavyweight in

sight who might prove a dangerous threat to Gentleman Joe.

Sometime during 1946 every titleholder but one defended his crown at least once. The lone exception was Freddie Cochrane, who took the welterweight laurels in 1941 and lost the title in the past year to Marty Servo. Servo, plagued by injuries, was forced to retire from the ring before another fight whereupon Ray Robinson, long recognized as the "uncrowned champion," officially gained the diadem by outpointing young Tommy Bell late in December.

Gus Lesnevich, light heavyweight king, stopped Freddie Mills in a London bout that paid $176,000; Tony Zale, middleweight ruler, knocked out Rocky Graziano, wartime sensation, in six rounds; Willie Pep halted Sal Bartolo to merge the National Boxing Association and New York State featherweight recognition into one undisputed championship; Manuel Ortiz, bantam king, beat three challengers; and Jackie Paterson, flyweight from Scotland, defended once.

The lightweight title was still split as Bob Montgomery kayoed Allie Stolz and Wes Mouzon to retain recognition as champion in New York State, while Ike Williams knocked out Ronnie James, British king, at Cardiff, Wales, to keep the crown as seen through the eyes of the N.B.A.

Zale, the Gary, Indiana, whirlwind, furnished the biggest thrill of the year in his slugfest with Graziano in which the two gladiators took turns pulverizing each other before the champion, groggy and gory, got up from the floor twice to finally halt Rocky with a right to the body. Tony was the unanimous choice of boxing writers for the Edward J. Neil Memorial Trophy for the year's outstanding contribution to the sport. At the same time the ailing Mike Jacobs, promoter, was voted an award for outstanding service over a period of years.

A team from Hawaii and one from the U.S.M.C. Cherry Point, N.C., tied for team honors in the National A.A.U. championships held April 7–10, 1946. The U.S. Military Academy won the twenty-third annual Intercollegiate Association tournament, March 9, 1946.

THOMAS V. HANEY.

BRAZIL. A republic of South America. Area: 3,286,170 square miles. Population (1944): 45,300,000. Capital: Rio de Janeiro.

Brazil is the largest country in South America and the fourth largest in the world. Over half of its total surface is composed of a plateau of 1,000 to 3,000 feet elevation. More than two-fifths of the country consists of the Amazon and part of the Plata lowlands. The lowlands and eastern coastal plain are tropical; most of the plateau region is sub-tropical; the southeast is temperate in climate.

Population. Nearly one-half of the total population of South America lives in Brazil. It is estimated that about 60 percent of the people are of European origin (chiefly Portuguese, Italian and German); 30 percent are of mixed blood (white, Negro, and Indian); 8 percent are Negro, and 2 percent Indian. The foreign population consists mostly of Italians, Portuguese, Spanish, Germans, and Japanese, and is largely concentrated in the south and southeastern sections of the country. The number of persons per square mile ranges from 0.7 in the state of Amazonas to 114 in the state of Rio de Janeiro.

The three largest cities are: Rio de Janeiro, 1,780,000; São Paulo, 1,315,000; and Recife, 350,000.

The official language of Brazil is Portuguese, but Italian and German are spoken in some sections of the southern states.

The predominant religion is Roman Catholic.

It was estimated in 1942 that about 50 percent of the adult population is literate. In 1941 there were 42,794 primary schools with a total enrollment of 3,350,737 students; 4,572 secondary schools with a total student body of 419,674; 4 universities and 57 separate faculties and institutes with a total registration of 21,098 students.

Government. Brazil is a federal union of 20 states and five border territories. Getulio Dornelles Vargas became President by a coup d'etat in October 1930. In 1937 Vargas dissolved the Congress and assumed direct control of the government. A new Constitution was drawn up in 1937 which was never made effective. Under a decree issued in 1939, the national government assumed virtually complete control over state governments. President Vargas resigned in October, 1945. Supreme Court Chief Justice José Linhares became acting chief executive pending elections, which were held on Dec. 2. President: General Enrico Gaspar Dutra.

Events, 1946. Brazil ushered in the year on January 31, with the Presidential inauguration of Maj. Gen. Enrico Gaspar Dutra, the first Chief Executive elected by a popular vote in a direct election. The election in December 1945 followed a coup earlier in October that unseated Gen. Getulio Vargas, so-called dictator of South America's largest state since 1930.

Although President Dutra's inaugural speech stressed promises of democratic reforms in the fields of education, finance, cost of living, industry, and international relations, there was some doubt concerning the actual results after the new regime was formally entrenched. Vargas, who was elected to Congress from his home state of Rio Grande do Sul and who still controlled a powerful political machine, openly supported Dutra. Despite this support, President Dutra was in position to make independent decisions, since he held the unqualified support of the army which overthrew Vargas.

The Cabinet chosen by President Dutra consisted of the following: João Neves da Fontoura, Foreign Affairs; João Liuz, Justice; Gastão Vidigal, Finance; Col. Edmundo Soares, Communications; Netto Campello, Agriculture; Octacilio Lima, Labor; Gen. Pedro de Goes Monteiro, War; Vice Admiral Dodsworth Martins, Navy; Brig. Gen. Armando Trompowski, Air. None of the military men belonged to any political party, except Lima who was affiliated with the Labor party led by Vargas.

On February 19, Brazil followed the line of the United States' *Blue Book* accusations of Axis influence in Argentina which contained charges against Eduardo Aunos, recently appointed Spanish Ambassador to Brazil. The United States report mentioned Aunos as a member of a Spanish commercial mission in Buenos Aires which attempted to ship German arms into Argentina via Spain. Brazil refused to receive Aunos. Although he was en route to Rio de Janiero, the Government persuaded him to land at Trinidad. Foreign Minister Fontoura explained that Aunos was accepted previously by the Linhares government, the interim regime between Getulio Vargas and Enrico Dutra, which had little information on the case. However, Fontoura pointed out, relations between Brazil and Spain were most friendly; the move was prompted by Brazil's hemisphere policy which was the backbone of her foreign policy.

Despite this acceptance of part of the United States' *Blue Book* accusations of Argentina-condoned Nazi activities; Foreign Minister Fontoura

on April 4 issued a memorandum stating that Brazil would continue friendly relations with Argentina. The statement was in effect a reply to the *Blue Book* transmitted to Brazil on February 12. The *Blue Book* charged that Argentina's President-elect, Juan D. Perón, had manifested Nazi sympathies.

Fontoura stated that the *Blue Book* exposed the need for prudent vigilance, but that the Brazilian Government did not believe that the Nazi doctrines would find a welcome haven in the Western Hemisphere. The reply further declared that Brazil had no desire to exclude Argentina from any hemispheric mutual defense treaty.

The factors capable of disrupting the stability of the newly-established Dutra regime were the problems of inflation, disparity in wages, and poor living conditions among the low income population all coupled with the flourishing growth of the Communist party. Led by Luiz Carlos Prestes, one-time Brazilian army captain, the Communist Party in the December, 1945 election polled 568,000 votes (ten percent of the total), elected fourteen deputies and its leader to the Senate and emerged as the fourth strongest party in Brazil.

During the Vargas dictatorship in 1935, Prestes was imprisoned for nine years after sparking an abortive revolt, and the Communist party was outlawed. Shortly before the election in 1945, Vargas released Prestes and legalized the Communist Party.

Fear of the Communist strength forced Dutra to resort to repressive measures in a campaign to reduce the potency of the Communist Party. Foreign Minister Fontoura, in an interview which he later denied categorically, inadvertently embarrassed his Government by declaring that the United States should diplomatically shake hands with Argentina (since Argentina was anti-Communist) and strive to build a hemispheric wall against the Soviet Union.

On the day of this statement, May 13, the arrival of Envoy Jacob Suritz, Russia's first Ambassador to Brazil in 29 years, was greeted by a cheering crowd of Communists.

Suritz's arrival was not timed too propitiously. In the early April, as the Government was groping about for a means to smash the Communist strength, leader Prestes made a political faux pas by declaring that the Brazilian Communists would fight against their own country if it "eventually became involved in imperialist war against Russia." Reaction was swift and began with Congress immediately discussing plans for outlawing the Communist Party. Prestes replied by declaring that the United States was engaged in an imperialistic plot to foment war between Brazil and Argentina.

During May the Government started purging its offices of any personnel linked to the Communist Party. At Pernambuco, police prohibited outdoor Communist meetings on the grounds that speeches were inciting people to civil war. On the day before Suritz's arrival, troops were landed at the strike-bound coffee center of Santos. This followed the closing of the stevedores syndicate by the Labor Ministry, which had employed police to force the dock workers to unload Spanish ships. The workers returned to work after Minister of Labor Octacilio Negrao de Lima promised a 54 percent pay raise and replacement of disreputable tenements with modern housing.

A week later workers on the Leopoldina railroad struck, crippling food supply and transportation to the important state of Minas Gerais. The Government immediately assumed operation of the railway. Both major strikes were fostered by Communists, the government claimed, and directed against privately owned companies.

The Cabinet grew more worried and on May 15 it approved a national anti-Communist program nebulously aimed to "defend democracy and the Christian traditions of the Brazilian people." The campaign was publicized on a broad newspaper and radio front. Tension mounted on May 23 when the police used gunfire to disperse an outdoor Communist meeting in Rio de Janiero and on the following day, the Government issued a drastic decree prohibiting Communist meetings anywhere in Brazil. The Government next turned in the direction of Prestes and ruled that, despite the general amnesty given to political prisoners, the Communist leader was not eligible for reinstatement in the army.

The Communists replied with another strike in Santos on May 27. The situations grew more acute on June 1 when workers of the Rio de Janiero tramway, light, and power company voted to strike for higher wages. Police met the threat by seizing Communists and three labor union headquarters in Rio de Janiero. Communist leaders denounced the seizure as an "attempt on the free functioning of legally registered parties." In late July, President Dutra tightened the clamp by a decree forbidding organized labor to engage in any political activity or engage in "propaganda for doctrines that are incompatible with the national institutions and interests."

After a brief sojourn following the elections, ex-President Vargas returned to the political scene in Rio de Janiero early in June. Full fanfare heralded his return as advertisements were printed in newspapers inviting his followers to welcome him. His induction to the Senate, however, was greeted by UDN (*Uniao Democrático Nacional*) minority leader Octavio Mangabeira requesting a vote of appreciation to the army for evicting Vargas.

One of Brazil's more flamboyant and profitable businesses, gambling, was suddenly outlawed in April by government decree. In Rio de Janiero alone, this order put 70,000 people out of work and deprived the city of $2,000,000 in annual revenue. However, horse racing and national lottery, which ranked in revenue just behind the casinos, were unaffected.

The combination of a rising cost of living, estimated to have increased 300 percent since 1944, a growing black market, and hunger among the population on the lowest economic level created a tension that finally snapped in a major riot in Rio de Janiero on August 31. President Dutra attempted to alleviate the distress on August 21 by exempting thirty-three food products and soap from all customs duties and business taxes. He followed this up with an embargo imposed on all food stuffs, hides, and lumber in the hope of increasing the supply of consumer goods.

Crowds gathered in the streets of Rio de Janiero and São Paulo on August 30 formed into marching bands and shouted "Death to black marketeers." As the crowds moved through Rio de Janiero attacking high-priced movies, restaurants, and shops, shock police and troops were called into the city to quell disorders.

The Brazilian Congress held one of the stormiest sessions in its history on the next day. Heated debates and fisticuffs accompanied the inquiry into the riot. The chief of the federal police, Joe Pereira Lira, said that the Communist party was preparing for revolution and attributed the riot to agitators who took advantage of student activities against high prices. During the height of the disorder

Communist Deputy Trifino Correia was arrested, but released on the day of the Congressional session. President Dutra sought to avert a further crisis by ordering a moratorium of 180 days on payment of bills by all producers of livestock. On September 1 martial law was declared in Rio de Janiero and maintenance of order was placed in the hands of the military authority. Police guards were removed from the Communist headquarters which had been occupied on the previous day. When the riot died out in the first days of September, the casualty list reached one dead and a hundred injured.

The Brazilian Constituent Assembly ratified on September 17 a new Constitution which returned the country to representative government and ended six years of rule by decree. Replacing the "New State" charter adopted by President Vargas in 1937, the new Constitution deprived the President of his power as "supreme authority of the state" and introduced a two-house Congress. Although the President retained wide power and held the right of veto, a two-thirds majority in Congress could override him. The President was permitted to initiate legislation and, with the consent of Congress, call a state of siege.

Provisions in the charter touched on various aspects of Brazil's social, economic, and political life. While greatly freeing the economy, the government provided for emergency economic measures by retaining "the faculty to interfere in the economic domain and to monopolize a determined industry or economic activity. . . . Such intervention shall be based on the public interest and limited by the fundamental rights guaranteed under this Constitution."

Strong powers were given the Government in the political field where it could outlaw any political party whose program of action was contrary to a "democratic regime based in the plurality of parties and in the guarantee of fundamental human rights." Other provisions restored full powers to the States under the Federal United States of Brazil, set up an independant judiciary, granted the vote to all citizens over eighteen years old and guaranteed the freedom of speech, assembly, religion, and press. Censorship was prohibited and the right of habeas corpus action was guaranteed all Brazilians.

In the social security field, the Constitution outlined extensive provisions for pensions, unemployment insurance, hospitalization, an eight-hour day, annual vacations, a weekly day of rest, indemnification for dismissal, minimum wages without discrimination, security of tenure after ten years and recognition of labor's right to strike.

With the adoption of the Constitution, the Constituent Assembly changed into an ordinary Congress. Earlier in the month all Cabinet members resigned to give President Dutra a free hand in selecting a new Cabinet. On September 19 the Congress elected Senator Nereu Ramos to the Vice-Presidency. By October 17 the following Cabinet members were appointed: Justice, Benedicto Costa Netao; War, Maj. Gen. Pereira da Costa; Agriculture, Daniel de Carvalho; Communications, Clovis Pestana. On November 14 the Government announced that Raul Fernandes, Brazilian representative to the Paris Peace Conference, would be appointed Minister of the Exterior. Within a few weeks the Cabinet also included Moran Dins de Figueiredo, Labor; Luiz Correia e Castro, Finance; and Admiral Sylvio Noronba, Navy.

Senator Getulio Vargas, who avoided signing the new Constitution, signalled his return to active politics on November 30 by a speech attacking the Government of President Dutra. Before a rally of the Labor party, Vargas asserted that democracy was on the decline and championed the cause of a Socialist democracy. He accused the Dutra Administration of piling up a large debt and depriving Brazilians of several democratic rights.

In early December, Finance Minister Luiz Correia e Castro announced plans for the reorganization of Brazil's banking system. Basing the reorganization on the pattern of the Federal Reserve System of the United States, Minister Correia e Castro said he would ask Congress for authority to create a Banco Central to coordinate the activities of the seven other specialized banks. If the reorganization plan received approval, the Government Banco do Brasil, which handled all types of banking transactions, would become a simple deposit and discount bank. The plan would establish special banks for mortgages, rural credit, industrial financing, export and import, investments and reinsurance.

Brazil's dream of heavy industry development was primed, late in June, by the first steel ingots rolling off the production line of the $90,000,000 Volta Redonda steel mills south of Rio de Janiero. The mills were financed by a $45,000,000 credit from the United States Export Import Bank and an equal amount purchased by the Brazilian stockholders and the Brazilian Government. Volta Redonda was capable of producing 300,000 tons a year, and further plants were planned to bring production to an annual 1,000,000 tons.

Construction of 1,000 rural schools in the interior of Brazil was announced in August by Education Minister Caunpos. A budget of 66,000,000 cruzeiros was set aside for the program in 1946, with a large appropriation expected for 1947. The new Constitution carried a provision by which the Federal Government must devote 10 percent and the state and municipal authorities 20 percent of their income to the promotion of education.

Relations with the United States. Commercially, the war-strengthened ties between the United States and Brazil held fast, but idealogically they weakened before a strong resurgence of nationalism. At the end of 1945, the presence of United States sailors was cause for city-wide riots in São Paulo, sponsored, it was believed, by agents provocateurs. Communists played on the theme of ridding the country of United States money and personnel, classified as the forerunners of imperialism.

Much of the United States goodwill in Brazil was stimulated by United States Ambassador Adolf A. Berle, Jr., who did much to encourage Brazil's economic development, especially in the field of aeronautics. Ambassador Berle arranged for the sale of 24 army transport planes that served to enlarge the existing limited air service. In early July, the United States extended $8,000,000 of credit to Brazil to purchase surplus property in that country including plane parts and small boats.

International Relations. As a member of the United Nations Security Council subcommittee, Brazil was last to agree on the recommendation that the question of Spain be submitted to the General Assembly if General Francisco Franco was still in power in September. The decision was unanimous when Dr. Pedro Velloso, appointed to the United Nations on March 7, withdrew his reservation.

In the International Monetary Fund organization, Brazil was the first nation to take steps to eliminate the multiple foreign-exchange rates for its currency, the cruzeiro. The action, taken in April, established one value for sale and purchase

of Brazil's exchange for foreign trade purposes, which averaged the two rates which existed before. Under the old system exporters were required to sell 20 percent of their foreign exchange receipts at a special premium to the Bank of Brazil. While the Government was making about 14½ percent out of such transactions, the single exchange rate eliminated the profit. A 3 percent tax on exports was continued.

On September 17 the United States and Brazil signed a bilateral air agreement dealing with all phases of commercial aviation operations. The agreement granted an American airline free and unlimited access to the "cut-off" route via Bareiras, between Balem and Rio de Janiero and permitted Brazilian airlines to fly to New York. The Parnamirim airbase, largest in Brazil and used by the Allies during the war, was returned to Brazil by the United States on October 5. During the war the base handled an average of 800 planes a day.

Great Britain and Brazil concluded a major trade agreement on September 19 under which Brazil will spend approximately $200,000,000 in blocked sterling on British machinery and equipment. In addition to the Brazilian purchases, the pact laid down principles for the reorganization of certain British railways and utility companies in Brazil, for the increase of British purchases in Brazil and for future discussions on a new civil aviation agreement.

On October 23 a five-year barter pact was negotiated between Brazil and Argentina which provided Brazil with Argentine wheat in exchange for crude and manufactured rubber, cotton, textiles and yarn, lumber and pig iron. Effective January 1, 1947, the agreement committed Argentina to supply Brazil with annual shipments of 1,000,000 tons of wheat, providing the exportable surplus is not less than 2,600,000 tons. If the surplus is less, Brazil will receive 45 percent of the surplus. Brazil promised to send Argentina its entire exportable surplus of tires, 3,000 tons of crude rubber in 1947 and 5,000 tons in each of the succeeding four years, 60,000,000 yards of cotton textiles in 1947 with increased shipments during the succeeding years, a billion square feet of lumber over the five-year span and an annual minimum of 15,000 tons of pig iron.

The die-hard elements of the Japanese population in Brazil, who never admitted that Japan was defeated, engaged in terroristic activities against those Japanese who faced the war's end realistically. Several prominent Japanese were murdered by the terroristic Shinto Rommei society. Reputed to have a membership of 130,000, the society was engaged in espionage activities during the war and had planned to bomb the Panama Canal shortly after Pearl Harbor. In April the police began rounding up the terrorists on charges of intimidating their fellow countrymen. The efforts of the police to stamp out the secret society only succeeded in increasing the gang's activities. A scheduled wave of assassinations on August 15 was broken up in a gun battle after which President Dutra ordered the deportation of 27 leading terrorists from São Paulo State.

National Economy. Agriculture constitutes the basis of Brazilian economy. It is estimated that over three-fourths of the total population derives its income directly from agriculture. Livestock and livestock products rank first in domestic importance, while coffee and cotton lead all other agricultural crops in foreign trade. Brazil now ranks fourth among cattle-raising nations of the world with some 42,000,000 head. In 1940 there were over 6,000,000 goats; more than 25,000,000 swine; and about 15,000,000 sheep.

The most valuable agricultural crops are coffee, cotton, and corn. The country produces about one-half of the world's output of coffee; ranks third among world producers of corn; and leads the countries of the Western Hemisphere in production of rice. Other important agricultural crops include: sugar, manioc, beans, citrus fruits, bananas and other fruits, tobacco, wheat, oil-bearing seeds and nuts, and cacao. Intensive efforts are being made to increase the country's output of rubber. Brazil produced 9,400,000 bags (of 60 kilograms) of coffee in 1944; 470,000 metric tons of cotton in 1943–44; 1,790,000 metric tons of rice in 1944; 1,300,000 metric tons of sugar in 1943–44; 1,998,887 bags (of 60 kilograms) of cacao in 1943; and 76,762,473 bunches of bananas in 1942. For the past 10 years Brazil's annual corn crop has averaged about 5,500,000 metric tons.

Brazilian industry has been developing rapidly since 1900. In 1940 Brazil had 52,379 manufacturing plants; by 1943 the number had grown to 100,000, employing 1,500,000 workers; São Paulo is the leading industrial state. In 1943 the most important manufactures were: foodstuffs, comprising about 32 percent; textiles, 19.8 percent; clothing and toilet goods, 7 percent; chemicals, 6.7 percent. It is estimated that the total value of Brazilian industrial production reached more than 31,000,000,000 cruzeiros in 1943. Sericulture, with an annual production in 1944 of 300,000 kilograms of silk yarn, representing a gain of nearly 400 percent in four years' time, is a growing industry.

Foreign Trade. Brazil's foreign trade reached a high record in 1944. Exports totaled 10,711,338,000 cruzeiros, 80 percent of which was agricultural, livestock, and forest products. The largest single export item was coffee beans, valued at 3,879,343,000 cruzeiros. Cotton piece goods valued at 1,046,193,000 cruzeiros ranked second, and raw cotton valued at 667,941,000 cruzeiros, third. Rubber exports in 1944 totaled 365,389,000 cruzeiros, an increase of 135 percent over 1943, though exports of tires and tubes decreased. During 1944 Brazil exported 107,640 tons of raw cotton; 13,555,484 bags of coffee; 25,805 tons of preserved beef; 15,860 tons of other preserved meats; 24,253 tons of hides and skins; 296,000 metric tons of pine; 110,146 metric tons of cacao beans, and cocoa butter; and 48,692 metric tons of maté.

The total value of Brazilian imports for 1944 amounted to 7,885,836,000 cruzeiros, an increase of 29 percent over 1943. Foodstuffs, valued at 1,687,835,000 cruzeiros, made up the largest group of imports, of which wheat was the leading item. Manufactured iron and steel products, valued at 551,097,000 cruzeiros, ranked second. Imports of scientific instruments and accessories increased over 69 percent; imports of cutlery, tools, and utensils more than trebled.

Ninety-three percent of Brazil's total imports in 1944 came from the American republics, which took 76 percent of Brazil's exports. The United States took 53 percent of Brazilian exports, and provided 61 percent of its imports. Argentina was the principal South American customer, taking 13 percent of Brazil's exports and furnishing 21 percent of its total imports.

JOSEPH P. BLANK.

BRETHREN, German Baptist (Dunkers or Dunkards). A religious organization founded in Schwarzenau, Germany, in 1708 by a group of Pietists, led by Alexander Mack, and established in Germantown,

Pennsylvania, in 1719 under the leadership of Peter Becker. There are four denominations of Brethren in the United States, the largest and oldest group being the Church of the Brethren, with headquarters at 22 South State St., Elgin, Illinois.

BRIDGES. It is an ill wind that blows nobody good, and the winds that destroyed the suspension bridge at Tacoma, Washington, and the truss bridge over the Mississippi at Chester, Illinois, have had the good effect of starting a comprehensive study of aerodynamics or wind effects on long-span bridges in general and suspension bridges in particular. On rigid-truss structures the effects must be in sheer power of the wind to lift or overturn the bridge. But with the flexibility of a suspension bridge a comparatively light wind may set up cumulative vertical waves and lateral swaying that may culminate in vibration movements of serious or destructive force. The investigations included laboratory tests with models in wind tunnels, supplemented by instruments placed on the Golden Gate suspension bridge at San Francisco to record actual movements and stresses. Plans for the new Tacoma bridge, of 2,800 ft. span, have been adopted and construction is expected to start in 1947.

As to other suspension bridges, a report on the Brooklyn Bridge shows it to be in good condition, needing only some strengthening of the trusses on account of the heavy motor truck traffic. The George Washington Bridge, over the Hudson at New York, built in 1931, has two three-lane roadways, separated by an open space which is now being paved to make a total of eight lanes.

In a bridge built by the U.S. Army at West Point, N.Y., the stiffening of the 460-ft. span is effected by cables leading from the suspension cables to the chords of the floor framing. Traffic on the 12½-mile suspension and cantilever bridge across San Francisco Bay is so heavy that already plans are being discussed for a second bridge. Wire cables of a 240-ft. suspension bridge built in 1856 over the Feather River in California were found in good condition in 1946.

There are several projects for bridges across the Mississippi, but most of them are in the early stages and the present financial conditions are not favorable for construction. The piers for the Memphis bridge are built, but the superstructure is delayed by the high cost of steel. At the Chain-of-Rocks, north of St. Louis, the course of the river is being diverted by a canal which is to be spanned by a bridge having a truss span of 465 feet over the channel. Other projects are at New Orleans, La.; Helena, Ark.; Carruthersville, Tenn.; Cape Girardeau, Mo.; East St. Louis, Ill.; and the reconstruction of the wrecked bridge at Chester, Ill.

The most serious bridge accident of the year was the wrecking of 300 feet of the two-mile, high-level Cooper River bridge at Charleston, S.C., by a steamer which dragged its moorings in a storm and drifted against one of the steel piers. The bridge and been purchased by the State and was to have been freed of tolls in July. An emergency ferry service was provided by the U.S. Navy until the State Highway Department built a temporary span of the Bailey military type, the new permanent structure being opened in June. Another Bailey bridge was built over the Patoka River near Jasper, Ind., when an old 114-ft. span was wrecked by a skidding motor truck.

To relieve congestion of street traffic at Washington, D.C., two four-lane bridges across the Potomac have been authorized by Congress in preference to one very wide bridge. A bridge, 8,000 ft. long, with viaduct approaches, is planned to cross the Allegheny between Kensington and Tarentum, Pa. The highest bridge in Kentucky, 250 feet above the Kentucky River at Cleveland, Ky., was opened on August 17. Of movable bridges, the New York Central R.R. plans to replace the old swing bridge over the Harlem River by a vertical-lift bridge of 225-ft. span, to have a headroom of 25 feet when lowered and of 135 feet when raised for navigation. Chicago has the distinction of possessing 56 movable bridges, more than any other city. They include trunnion bascules, rolling bascules, vertical-lift, and horizonal swing bridges, and there have also been temporary pontoon spans.

An example of the utilization of old structures is the bridge over the Colorado River at Topock, Arizona. Abandoned by the railroad in 1945 when a new bridge was built, it has been converted into a highway bridge by putting in a steel floor-framing to carry a 20-foot concrete slab.

Skewed bridges, crossing roads or railways at a flat angle, are often difficult to design and costly to build, owing to obstacles in placing the supports and in adjusting the lengths of the several spans. In several cases the solution has been to support the spans on a single line of columns, each column having a T-head wide enough to carry lines of girders for a deck slab or floor. For such a structure crossing a highway and two railroads the columns were 6½ x 3 ft. in section, with heads 30 ft. wide. This peculiar design has been applied to railroad and highway bridges of both steel and concrete. An experimental novelty is a 100-ft. plate-girder span built entirely of aluminum alloy, even to the rivets, at Marion, N.Y. It weighed 53,000 lb., as compared with 128,000 lb. for identical steel spans in the same bridge.

A 10-mile causeway or embankment with an 800-foot channel span 145 feet above the water is planned by the Port Authority of St. Petersburg, Florida, across Tampa Bay southeast to Bradentown, and has been approved by the War Department. Several highway toll bridges have been approved by Congress, but in State highway departments the trend is to purchase or otherwise exempt bridges from tolls. West Virginia, for example, has freed three toll bridges in 1946.

In many States bridges were wrecked by floods in 1946. The failure of a bridge across the Manasquan River, near Brielle, N.J., is attributed to the dredging of the channel, thus exposing the wood piles to the attacks of teredos. Fire damage to the Ottawa River bridge at Ottawa, Canada, on March 29, is credited to the too-frequent cigarette.

Throughout Europe, bridge repairs and reconstruction are major items in post-war engineering. Military or sectional bridges are being used extensively for speed of construction, either as a complete structure or to span wrecked gaps. In France, of nearly 6,000 highway bridges destroyed or seriously damaged, 4,000 had been permanently rebuilt by October, 1946; and of 2,603 railway bridges, 1,065 has been permanently rebuilt and most of the others given temporary repairs. A curious feature of a welded steel bridge in spans of 100 feet and 48 feet over the Seine at St. Cloud, is the facing of the outer girders with copper sheets 10 feet deep. Another welded steel bridge crosses the Seine at Neuilly in spans of 269 feet and 219 feet.

The wrecked Rhine bridge at Dusseldorf was replaced by a suspension bridge having four spans of 312 feet, designed by an American engineer. At Cologne, the "Patton" bridge, opened on June 12,

has eleven spans of 120 feet and a draw span for navigation, using the Bailey type of construction for both piers and spans. Denmark has completed the Alexandrine bridge, having a steel arch span of 390 feet. On June 15, the kings of Norway and Sweden formally opened the international Swinesund highway bridge over the Idelfjord River, near Oslo, having a concrete arch of 570-foot span. Other long-span concrete arches are: Plougastel, France, 580 feet, in 1930; Traneborg, Sweden, 592 feet, in 1934; Esla, Spain, 672 feet, in 1942; Sando, Sweden, 866 feet, in 1943; Zurich, Switzerland, 442 feet, in 1946.

In England, ambitious bridge projects include a suspension bridge over the Severn, with a main span of 3,000 feet and two side spans of 1,000 feet, the entire length of bridge to be about eight miles. Other proposed suspension bridges include spans of 1,000 feet or more over the Humber and over Milford Haven. In Australia, the new railroad bridge over the Hawkesbury River was opened on July 1. It has two truss spans of 446 feet, four of 348 feet, and two of 147 feet. It supersedes the older similar bridge, two hundred feet downstream, which was built by American engineers in 1889, but which had become too weak for modern locomotives and traffic, and had also shown defects in the foundations. Canada converted a lift bridge at Winnipeg into a fixed structure, since there is now no navigation on the Assiniboine River. Another Canadian project is a St. Lawrence bridge between Prescott, Ontario, and Ogdensburg, N.Y. A causeway is proposed between Nova Scotia and Prince Edward Island.

See FOUNDATIONS.

E. E. RUSSELL TRATMAN.

BRITISH CENTRAL AFRICA. A region lying west of Mozambique and south of Tanganyika and the Belgian Congo, consisting of the following British territories: the self-governing colony of SOUTHERN RHODESIA, the protectorate of NORTHERN RHODESIA and the protectorate of NYASALAND. The establishment of a standing consultative Central African council for the three territories was announced in 1944. The area and population of the regions are shown in the accompanying table.

BRITISH CENTRAL AFRICA: AREA AND POPULATION

Territory	*Sq. Miles*	*Population*
Southern Rhodesia	150,333	1,453,000 [a]
Northern Rhodesia	290,320	1,385,386 [b]
Nyasaland	37,374	1,686,045 [a]
Total	478,027	4,524,431

[a] 1941 census for 68,954 Europeans; estimate for others. [b] 1943 estimate. [c] 1940 estimate.

BRITISH EAST AFRICA. A region comprising the following British territories: the colony and protectorate of KENYA, the protectorate of UGANDA, the mandated territory of TANGANYIKA and the island protectorate of ZANZIBAR (with Pemba). KENYA, TANGANYIKA and UGANDA form a customs union.

BRITISH EAST AFRICA: AREA AND POPULATION

Territory	*Area Sq. Miles*	*Population* [a]
Kenya	224,960	3,940,469
Uganda	93,981	3,930,724
Tanganyika	360,000	5,499,739
Zanzibar (with Pemba)	1,020	250,000
Total	679,961	13,620,932

[a] Estimates for 1944 except for Zanzibar (1931).

In 1945 a British Government *White Paper* proposed a central legislature for the three territories and an executive organization with advisory boards dealing with questions of common concern. The area and population of the territories is shown in the accompanying table.

BRITISH EMPIRE. The world's largest empire, comprising an area of 14,435,000 square miles and a population of about 539,870,000. It consists of:

1. The United Kingdom of Great Britain and Northern Ireland. See GREAT BRITAIN; IRELAND, NORTHERN.

2. Self-governing Dominions—AUSTRALIA, CANADA, NEW ZEALAND, UNION OF SOUTH AFRICA.

3. NEWFOUNDLAND, a dominion whose constitution was suspended in 1933 and whose government is carried on by a Commission of Government responsible to the Government of the United Kingdom.

4. EIRE (IRELAND), a sovereign, independent state associated for certain purposes with the United Kingdom and the self-governing dominions, the group defined constitutionally at the 1926 Imperial Conference, as confirmed by the Statute of Westminster, 1931, as the British Commonwealth of Nations.

5. INDIA and BURMA, in transition to self-government.

6. Self-governing colonies—CEYLON and SOUTHERN RHODESIA.

7. Crown colonies and protectorates—ADEN, BAHAMAS, BARBADOS, BASUTOLAND, BECHUANALAND, BERMUDA, BRITISH GUIANA, British Honduras, BRITISH NORTH BORNEO, BRITISH SOLOMON ISLANDS, BRITISH SOMALILAND, BRUNEI, CYPRUS, FALKLAND ISLANDS, FIJI ISLANDS, GAMBIA, GIBRALTAR, Gilbert and Ellice Islands, GOLD COAST, HONG KONG, JAMAICA, KENYA, LEEWARD ISLANDS, MALTA, MAURITIUS, NIGERIA, NORTHERN RHODESIA, NYASALAND, Pitcairn Island, ST. HELENA, SARAWAK, SEYCHELLES, SIERRA LEONE, STRAITS SETTLEMENTS, SWAZILAND, TONGA, TRINIDAD and TOBAGO, UGANDA, WINDWARD ISLANDS, ZANZIBAR.

8. Protectorates of a special nature—Federated Malay States, Unfederated Malay States, in transition to Malayan federation.

9. Mandates held by the United Kingdom—BRITISH CAMEROONS, PALESTINE, TANGANYIKA, TOGOLAND (British sphere).

10. Mandates held by Dominions—Nauru (administration by Australia), New Guinea (Australia), South-West Africa (Union of South Africa), Western Samoa (New Zealand).

11. Dependencies of Dominions—Labrador (Newfoundland); Ashmore and Cartier Islands, PAPUA, Norfolk Island, Australian Antarctic Territory (Australia); Union Islands or Tokelau and Ross Dependency (New Zealand).

12. Territories held under condominium—ANGLO-EGYPTIAN SUDAN (United Kingdom and Egypt); NEW HEBRIDES (United Kingdom and France); Canton and Enderbury Islands (United Kingdom and United States).

See the separate articles covering most of the above territories. Straits Settlements, Federated Malay States and Unfederated Malay States are dealt with under BRITISH MALAYA.

ALZADA COMSTOCK.

BRITISH HIGH COMMISSION TERRITORIES IN SOUTH AFRICA. Three territories in Southern Africa, BASUTOLAND, BECHUANALAND and SWAZILAND, which are not part of the Union, but are administered by a High Commissioner appointed by the King, un-

der the general direction and control of the Dominions Office in London. The area and population of the territories at the census of 1936 are shown in the accompanying table.

BRITISH HIGH COMMISSION TERRITORIES IN SOUTH AFRICA: AREA AND POPULATION

Territory	Area Sq. Miles	Population 1936 Census
Basutoland	11,716	562,411
Bechuanaland	275,000	265,756
Swaziland	6,705	156,715
Total	293,421	984,882

BRITISH MALAYA. British possessions and dependencies in the Malayan Peninsula; their areas, latest populations, and capitals are shown in the following table.

Division (Capital)	Sq. ms.	Population
Straits Settlements (Singapore)	1,356	1,435,895
Labuan (Victoria)	35	8,963
Malacca (Malacca)	640	236,087
Penang [a] (George Town)	390	419,047
Singapore [b] (Singapore)	291	771,798
Federated Malay States (Kuala Lumpur)	27,540	2,212,052
Negri Sembilan (Seremban)	2,580	296,009
Pahang (Pekan)	13,820	221,800
Perak [c] (Taiping)	7,980	992,691
Selangor (Kuala Lumpur)	3,160	701,552
Unfederated Malay States	22,276	1,912,497
Johore (Johore Bahru)	7,500	737,509
Kedah (Alor Star)	3,660	515,758
Kelantan (Kota Bahru)	5,750	390,332
Perlis (Kangar)	316	57,776
Trengganu (Kuala Trengganu)	5,050	211,041

[a] Includes Province Wellesley. [b] Includes Christmas Island and Cocos (Keeling) Islands. [c] Includes Dindings.

Before the Japanese occupation the chief city, Singapore (750,805), was one of the world's leading ports, as well as the principal British naval base and administrative center in the Far East. Malaya was conquered by the Japanese in 1941 and 1942. Singapore was re-entered on September 3, 1945, by Admiral Sir Arthur Power, Commander-in-Chief of the British East Indies fleet. The official surrender of Southeast Asia by the Japanese took place on September 12.

A union of the Malay States, a step frequently discussed in Britain before the Japanese surrender, was proposed in the British House of Commons on October 10, 1945. The whole of Malaya contained only three blocks of British territory: the settlements of Singapore, Penang (with Province Wellesley), and Malacca. The rest of the country was composed of the Federated States (Perak, Pahang, Selangor, and Negri Sembilan) and the Unfederated States (Johore, Perlis, Kedah, Kelantan, and Trengganu). Britain was pledged by treaty to uphold the position of the rulers of the respective states. The situation was complicated by the presence of large numbers of immigrants, including some 2,000,000 Chinese (almost equal to Malays in number) and approximately 750,000 Indians.

Government. Under the British administration, the Governor of the Straits Settlements also served as High Commissioner for the Federated and Unfederated Malay States and Brunei and as Agent for British North Borneo and Sarawak. The Straits Settlements constituted a crown colony which was administered by the Governor with the aid of executive and legislative councils. The other Malay States were all protectorates with varying degrees of British control. A British Resident advised the ruler in each of the Federated and Unfederated States.

After the return of the British to Malaya and the announcement of the plan for a Malayan Union the following appointments, dated January 29, 1946, were made: Governor-General of the Malayan Union and the Colony of Singapore, Malcolm MacDonald; Governor and Commander-in-Chief of the Malayan Union, Sir Edward Gent; Governor and Commander-in-Chief of Singapore, F. C. Gimson. For further developments in 1946 see below.

Events, 1946. A Government White Paper issued in London on January 22, 1946, proposed the regrouping of the Straits Settlements and the Malay States to form two administrations, namely, the Colony of Singapore and the Malayan Union, which would comprise the nine Malaya States and the Settlements of Penang and Malacca. The Malayan Union and Singapore would have separate governors and executive and legislative councils and other advisory councils would be created within and among the States.

In the meantime the approval of the sultans of the States was being sought. The report of Sir Harold MacMichael, who from October, 1945, to January, 1946, had been on a mission to all the States to invite the cooperation of the rulers in the establishment of a Malayan Union, was issued as a White Paper on February 27. Sir Harold reported that he experienced difficulty with the sultans of only two States, both of whom eventually agreed to the proposal for union. His account mentioned the absence of racial tension on Malaya, in spite of the fear on the part of Malays lest they be gradually submerged by immigrant Chinese. In a British House of Commons debate on March 8 it appeared that there was some opinion, both on the part of Britons experienced in Malayan affairs and among the sultans, that the treaties by which the States had become protectorates were being abrogated by Britain, and that some of the sultans had been hurried by Sir Harold MacMichael into signing agreements which they did not fully understand.

On April 1 the Malayan Union was inaugurated and the administration handed over by the military to the civil authorities. At a meeting of protest on April 16 the sultans decided to ask the Malayan Government for facilities to send a delegation to London. The sultans abstained from attending the installation of Sir Edward Gent as Governor of the Malayan Union on April 1 and that of Malcolm MacDonald as Governor-General of the Malayan Union and Singapore on May 22.

From Union to Federation. An important change in the plans for Malaya was announced from Singapore on July 4, as the result of conferences between MacDonald and the Malayan rulers. A "Malayan Federation" was to be substituted for the "Malayan Union" and a "High Commissioner" for the "Governor." The term "Federation" was welcomed in Malaya because it avoided a break with the past and implied the preservation, at least in part, of the prewar constitutional basis by which each sultan was recognized as the sovereign ruler of his own state. Sir Edward Gent, first and last Governor of the Malayan Union, would become the first High Commissioner. Further discussion was planned of the proposed Malayan citizenship.

Towards the end of July a working committee of six Malays and five British officials was set up in Kuala Lumpur to discuss the alternative plan. Ultimately the United Malays' National Organization was represented on the committee. The thorny question of citizenship was settled by the committee by a formula which limited citizenship to those whose real home was in Malaya and who looked to

Malaya as the object of their loyalty. By the beginning of December the proposals were in the hands of the British Government in London.

The results of the working committee's deliberations were made public on December 24. The Federation idea was included as anticipated and citizenship was defined as birth or permanent residence in Malaya. The committee announced that it would open public hearings on January 28, 1947. Early opposition to the plans came from Chinese, Indians, and the "Pan-Malayan Council of Joint Action," which denounced the committee as unrepresentative of the people of Malaya.

Economic Difficulties. In 1946 Malaya was beset by inflated prices, food and cloth shortages, deteriorated plantations, flooded mines, and labor unrest. Food, especially rice, which Malaya customarily imports, was short throughout the peninsula and some hardship was experienced. Imports of wheat helped to maintain the diet above the danger level.

The cost of restoring rubber plantations and tin mines was high and dissatisfaction arose from the controlling of the prices of the products. Encouragement to rubber producers came at the beginning of October when an Anglo-American agreement was made for the purchase by the United States of 200,000 tons before the end of the year. The rubber trade was confident that Malaya could supply the whole amount without drawing on United Kingdom stocks. There was some disappointment in Malaya at the low price accepted by the British delegation in Washington.

The People. The declining proportion of Malays, which has showed no change in trend, caused great anxiety to the Malay population. They formed 51 percent of the population in 1911 and only 42 percent in 1941. In the same period the Chinese rose from 33 percent to almost the proportion shown by the Malays. The percentage of Indians rose slowly but perceptibly from the eleven percent shown in 1911. The great centers of alien population were in the Straits Settlements, but Chinese outnumbered Malays in the Federated States as well. In the Unfederated States Chinese were in the minority.

The Chinese, and to a lesser extent the Indians, had control of the country's trade, industry, and professions. Many Chinese businesses forbade the employment of Malay labor. The Chinese and Indians had their own schools and maintained a far larger educated class than the Malays. The Malays, who belonged to the peasantry, were pushed back from the more desirable lands and were in general at the mercy of the traders.

In the discussion of the common citizenship question, it was clear that politically conscious Malays were prepared to make trouble if their sentiments were ignored and state lines eliminated. The Federation plan represented an attempt to take cognizance of these difficulties and at the same time to give Chinese and Indians a voice in the affairs of the country. A further complication was the fact that the religion of Malaya is Mohammedanism, to which few Chinese adhere.

ALZADA COMSTOCK.

BRITISH NORTH BORNEO. The northern part of the Island of Borneo. Until 1946 the territory was a protected state administered by the British North Borneo Company. Area, 29,500 square miles. Population (1931 census) 270,223. Chief town, Sandakan (13,723). In 1946 the administration of the territory was put under the Colonial Office. Arrangements were made to compensate the British North Borneo Company and to provide money from the Colonial Development and Welfare Fund for special development schemes. Edward F. Twining, formerly administrator of St. Lucia, Windward Islands, was appointed governor and Commander in Chief.

The chief products are rubber, timber, copra and coconuts, fish, tobacco and other crops. Exports of these products pass chiefly through Singapore and Hong Kong and are destined mainly for Empire countries.

BRITISH SOLOMON ISLANDS. A large group of islands under British protection, lying in the Pacific east of New Guinea. The largest is Guadalcanal (estimated 2,500 square miles) and the most populous is Malaita, with an estimated population of 40,000. The total land area is estimated at 12,400 square miles and the area within the bounds of the protectorate at 375,000 nautical miles. The 1931 census gave the population as 94,105, of whom 93,415 were natives (Polynesians and Melanesians). Capital, Tulagi. Administration is in the hands of a resident commissioner, with headquarters on Guadalcanal, and a nominated advisory council. Chief products are coconuts, rubber, sweet potatoes and fruits.

BRITISH SOMALILAND. A British protectorate on the Gulf of Aden, near the eastern tip of the African continent. Area, 68,000 square miles. The nomadic population is estimated at 700,000. Capital, Berbera. The protectorate is administered by a military governor who exercises all executive and legislative functions. The country was invaded by Italian forces in 1940 and recaptured by the British in 1941. The economy is pastoral, with camels, sheep, and goats as sources of income. Where rainfall is adequate the land is cultivated. Frankincense and myrrh are produced in the east. Animal products are the chief exports and cotton goods and food products the chief imports. Military Governor, Col. G. T. Fisher, appointed in 1943.

BRITISH WEST AFRICA. A region comprising the following British territories: GAMBIA, GOLD COAST, NIGERIA and SIERRA LEONE, each of which is a colony and protectorate. For administrative purposes mandated TOGOLAND is attached to the Gold Coast,

BRITISH WEST AFRICA: AREA AND POPULATION

Territory	*Sq. Miles*	*Population*
Gambia	4,068	205,000 [a]
Gold Coast (with Togoland)	91,843	3,962,692 [b]
Nigeria (with Br. Cameroons)	372,674	21,329,328 [c]
Sierra Leone	27,940	2,121,100 [a]
Total	496,525	25,618,120

[a] 1940 estimate. [b] 1942 estimate. [c] 1943 estimate.

and the CAMEROONS under British mandate to Nigeria. West African governors are members of the West African Council for the area. Currency is controlled by the West African Currency Board. The area and population of the territories is shown in the accompanying table.

BROOKINGS INSTITUTION. A non-profit corporation devoted to research and training in economics and government. The income of the Institution is derived from grants from foundations, its own endowment, and the sale of publications. Publications resulting from its research program in 1946 included the following: *Relief and Social Security*, by Lewis Meriam; *Regulation of the Security Markets*, by Harold G. Moulton, George W. Edwards, and Willard E. Atkins; *Americans in Persia*, by Arthur C. Millspaugh; and *China's National Income*, by Ta-Chung Liu.

The home of the Institution is situated at 722 Jackson Place, Washington 6, D.C. Its officers for 1946–47 were: Chairman: Robert P. Bass. Vice Chairman: Dean G. Acheson. President: Harold G. Moulton. Vice President: Edwin G. Nourse. Treasurer, Henry P. Seidemann. Secretary: Elizabeth H. Wilson.

BROOKLYN INSTITUTE OF ARTS AND SCIENCES. One of America's oldest and largest institutions for informal education, located in Brooklyn 17, New York. Its public activities are conducted at four centers: The Department of Education at the Academy of Music, the Central Museum, the Children's Museum, and the Botanic Garden. Founded in 1824, the Institute was incorporated in its present form in 1890. Total membership is about 5,300 and is open to everyone.

The Department of Education at the Academy of Music presents an adult education program annually of concerts, lectures, forums in every major field of the arts and sciences. Approximate attendance at these events for the season 1945–46 was 250,000.

The Institute's Museums possess collections in art, ethnology, and natural science. During 1941, the Art and Photography Classes formerly conducted at the Department of Education at the Academy of Music were transferred to the Brooklyn Museum to form the new Art School of the Brooklyn Museum. Attendance at both Museums for the year 1946 totalled 537,877.

The Institute's Botanic Garden comprises more than 50 acres and plant houses containing tropical and sub-tropical species. Botanic Garden attendance during 1946 totaled 1,436,051.

Officers: Adrian Van Sinderen is the President of the Brooklyn Institute. Julius Bloom is Director of the Department of Education, Charles Nagel, Jr., Director of the Brooklyn Museum, and Dr. George S. Avery, Jr., Director of the Botanic Garden.

BRUNEI. A state on the northwest coast of Borneo, under the protection of Great Britain. Area, 2,226 square miles. Population (1931 census), 30,135. Capital, Brunei (12,000). The general administration of the state is in the hands of a British Resident, and the supreme authority is vested in the Sultan in Council, which includes the Resident and the Sultan as President. Brunei produces chiefly crude oil, mangrove extract and rubber. Rubber is a relatively new product in Brunei, and although there were 8,329 acres under rubber in 1940, the postwar rehabilitation of the area has been slow. Through June, 1946, the Borneo Rubber Buying Unit purchased 547 tons in Brunei, about one-half of the country's prewar capacity.

BUDGET, Bureau of the. A division of the Executive Office of the President, transferred from the Department of the Treasury in 1939, which assists the President in the preparation of the Budget and the fiscal program of the Government. Its chief branches pertain to Legislative Reference, Estimates, Administrative Management, Statistical Standards, and fiscal programs (the Fiscal Division). The Bureau has the authority to assemble, correlate, reverse, reduce, or increase the estimates of the Government. Under the Government Control Act of December 6, 1945, similar authority was given the Bureau with respect to the preparation and review of budgets of wholly-owned Government corporations. Director: James E. Webb.

BUHL FOUNDATION. A foundation established in 1928 by Henry Buhl, Jr. Capital assets were $12,749,084 in 1946, and expenditures for the year totaled $483,453. The Foundation's programs center in the Pittsburgh area, where it has sought to provide more adequate factual bases for social work and regional economic effort, to promote research in public health and the natural sciences, and to develop the community's resources in higher education. Another objective is the advancement of housing standards for American cities, as exemplified in large-scale, planned communities administered on a long-term investment basis. In demonstration of this last-named objective, the Foundation operates Chatham Village in Pittsburgh, built in 1932 at a cost of $1,700,000. The Buhl Planetarium and Institute of Popular Science was built at a cost of $1,100,000 in 1939 as a gift to the people of Western Pennsylvania. Director: Charles F. Lewis. Offices: Farmers Bank Building, Pittsburgh 22, Pennsylvania.

BUILDING.* The fact that good dwelling units cannot be built at the $10,000 figure in many sections of the country, and that new dwellings must be priced beyond the reach or desire of most veterans, may well bring about the belated realization of the fact that our economy demands the production of housing for *all* citizens. Certainly veterans should not be saddled with houses built at peak prices, especially as the majority prefer and need rental housing.

Building Supplies Gain. In the final quarter of 1946 a still spotted but improving picture on building materials was noted with National Housing Agency citing "impressive increases." Both National Housing Agency and Civilian Production Administration continued their efforts to channel more and more materials directly into veterans' housing. They added six more items to the priority list, bringing to 66 the materials covered. Added items are electrical service entrance equipment, furnace pipes and fittings, copper tubing and fittings, copper sheet, galvanized steel sheet, and building papers and sheathing papers.

Civilian Production Administration restricted the $15,000 "small job allowance" on industrial building to structures of 10,000 sq. ft. or more; it extended controls over swimming pools, boardwalks, roller coasters, drive-in theaters, parking lots and tennis courts. More lumber, millwork, hardwood flooring and construction plywood were made available.

While all this was going on there was much concern over the growing black market on nails. In a related series of actions, National Housing Agency Chief Wyatt approved a premium payment plan on nails and nail rod, leading nail manufacturers took steps to boost production goals to the record high of 77,000 tons a month by December, and nails were put on the critical list for HH ratings.

Further continuing his stimulus to building materials production, Wyatt issued the tenth premium payment regulation—for sand lime brick. Plants whose output is affected by winter weather will be allowed special adjustments on quotas.

Guaranteed Contracts. The Housing Expediter also began putting guaranteed market contracts into play. Nearly 30,000 factory-built homes are called for under the first two such contracts. One with the Homeola Corporation of Chicago calls for 19,400 plywood structures, and the other with the William H. Harman Corporation of Philadelphia is to cover 10,000 steel houses. A third contract was entered into with American Fabricators of Louisville for

* This article is reprinted by courtesy of the *Architectural Record*.

7,500 plywood houses. Homeola expects to step up production to 100 houses a day while the Harman group plans to start with 50 houses in December and to increase output to a peak of 1,000 by next May. Reconstruction Finance Corporation will purchase at 90 percent of the factory price any house that the producers cannot sell.

Negotiations were placed under way with Andrew J. Higgins of New Orleans regarding a "package" of panel units for the walls, partitions, and ceiling of a house but not including the roof, floor, doors and trim, cabinets, plumbing, heating and electrical work. The panels include two steel sheets faced with a mat-surface vitrified enamel with a core of expanded concrete.

In connection with the emphasis on prefabrication, the Prefabricated Home Manufacturers' Institute advises of progress in the South in modernizing building codes to provide workable regulations for the construction of prefabricated homes.

Official hopes for the prefabricated home program were hit heavily in November by the Reconstruction Finance Corporation refusal to grant initial requests for credit in this field. The cases involving an estimated 100,000 houses, were considered bellwethers with potentially wide indirect effects.

Lumber Steps Taken. With the lack of lumber sending shivers up the governmental hierarchy clear to the White House, President Truman temporarily waived duties on imported timber, lumber and lumber products. Included among the products are flooring, plywood, red cedar shingles, and packing boxes. Reason for the move, say those in the know, is that competitive bidding on world markets could swing potential imports away from this country.

Coincident with this, lumber imports passed prewar highs, coming in at the rate of 1.4 billion board feet a year or twice the average prewar figure. Inflow of some scarce building materials also increased, including plywood, wood shingles, plaster rock and gypsum, and building brick. Official word is that Finland and Sweden may ship us wooden prefabricated houses.

Another official note on lumber is an estimate that 1946 production may reach 33 billion board feet, or 5 billion above last year. As to 1947, Expediter Wyatt anticipates that the total will be swelled by 1.6 billion board feet due to the 2,700-mile access road program.

Surplus Sales Slanted. The federal government's surplus property sales during the fall were slanted heavily to the veterans' housing program. In fact, the War Assets Administration promised that "virtually all" war surplus building materials and equipment would be made available for veterans' housing by the start of winter. Its streamlined sales plan was expected to get rid of all such surplus goods before Christmas, possibly by December 1.

In another field, War Assets Administration moved to boost the output of pig iron for housing. It leased the blast furnace at Gadsden, Alabama, for production under the National Housing Administration premium payment program. National Housing Administration announced further that three other blast furnaces would produce for housing under premium payments. A Civilian Production Administration order provides for allocations of pig iron for bathtubs, sinks, and lavatories, cast iron soil and pressure pipe, builders' hardware, etc.

Labor Still Short. Labor shortages continue to be a problem in construction. These are expected to show up even more as materials bottlenecks are broken. The United States Employment Service reports major labor markets encountering shortages in skilled building crafts, especially carpentry and bricklaying.

The Labor Department reported that a million and a quarter construction employees were added to the work force in the 12 months following the war's end, bringing August 1946 employment to 2,321,000.

From Many Sources. With construction playing an increasing role in the national economy, numerous federal agencies contribute to the over-all mosaic on construction. Here are items:

The Home Loan Bank System expects home financing credit by member associations to approach the record volume of $7 billion for the 1946–47 period—$4 billion for houses under Veterans' Emergency Housing Plan (VEHP).

Public Health Service advises that preliminary surveys under the new Hospital Construction Act are progressing in many states. Twenty had completed their surveys in October and 20 more were doing so.

Department of Justice was expected to appeal the Federal Circuit Court decision in Chicago which threw out the Federal Trade Commission's order against basing point prices for cement.

National Housing Administration in an analysis of HH authorizations for the January 15–March 29 period advises that eight out of ten were single-family detached houses. One-story houses were most popular, representing about 70 percent. About 40 percent of the dwellings were five-room and another 40 percent were divided between four- and six-room structures.

ESTIMATED CONTRACT VOLUME *

[*Millions of Dollars*]

37 Eastern States	*Year 1946* †	*Estimate Year 1947*	*% Change*
Commercial buildings	800	880	+10
Manufacturing buildings	1,250	1,070	−14
Educational and science buildings	220	380	+73
Hospital and institutional buildings	130	150	+15
Public buildings	20	60	+200
Religious buildings	70	100	+43
Social and recreational buildings	95	120	+26
Miscellaneous nonresidential buildings	80	100	+25
Total Nonresidential Buildings	2,665	2,860	+7
Apartment buildings, hotels and dormitories	540	1,250	+132
One- and two-family houses	2,800	3,360	+20
Other shelter	15	15	....
Total Residential Buildings	3,355	4,625	+38
Total Buildings	6,020	7,485	+24
Public works and utilities	1,725	2,100	+22
Total Construction	7,745	9,585	+24
Estimated dwelling units (37 states, basis of Dodge figures)	*465,000*	*630,000*	*+35*
48-state estimate (Basis of B. of L. S. figures)	*760,000*	*1,018,600*	*+35*

* Reprinted with permission from an article by Thomas S. Holden, President of F. W. Dodge Corporation, and Clyde Shute, Assistant Vice President and Manager of Statistical and Research Division, in the December 1946 issue of the *Architectural Record*.

† Nine months actual, 3 months estimated.

Commerce Department's Office of Technical Services has a 154-page report on two successful solar heat collectors developed under a War Production Board sponsored wartime research which bring "effective use of the sun's heat for residential heating closer to realization."

BULGARIA. A Balkan republic (proclaimed September 15, 1946: see *Events* below) in southeast Europe. Area: 39,825 square miles. Population (estimate of January 1, 1940): 6,308,000. Chief towns: Sofia (capital) 401,300 inhabitants in 1942, Plovdiv (Philippopolis) 113,000, Varna 78,000, Ruse (Ruschuk) 52,000, Burgas 41,000. Vital statistics (1943), based on prewar boundaries: living births, 21.1 per 1,000; deaths, 14.2; marriages, 12.5; infant mortality, 144 deaths under one year per 1,000 live births.

Education and Religion. In 1938–39 there were 252 kindergartens with 12,702 pupils, 4,743 public elementary schools with 596,111 pupils, 2,044 secondary schools with 360,786 pupils, and one State University (at Sofia) with 6,030 students.

Events, 1946. The central factor in the history of Bulgaria during 1946 was the strain, never fully relaxed and frequently reaching the bursting point, between the Communist dominated Fatherland Front Government and the opposition parties. The Government enjoyed the support of Moscow, to which it owed its existence. The opposition looked for support to Great Britain and the United States in asserting its claims for its views to be represented in the Government and its protests against the oppressive discrimination which it claimed to suffer at the hands of the Government. Both Great Britain and the United States were represented in the Allied Control Commission which was designed to oversee Bulgarian affairs, but almost as soon as the Commission was set up, shortly after the country was free of Axis forces, these representatives began to complain that their views, especially as regarded democratic representation for opposition parties, were virtually ignored. It had been the policy of the Fatherland Front Government, which was nominally a coalition, but in fact Communist-dominated, to weaken opposition groups by setting up in each group a rival leadership favorable to itself, which then sought to wrest control of the group from its former leadership and thus neutralize its opposition to the Fatherland Front. By the end of 1945 British and American dissatisfaction had issued in a number of protests, as a result of which a conference was held in Moscow at the end of December 1945. On December 26, 1945 an agreement was reached which provided for substantial representation of opposition parties in the Government. Disagreements concerning the implementation of this provision occupied most of 1946.

On January 4, 1946 the ministerial council met to discuss the results of the Moscow conference and to receive the friendly advice of Soviet representatives in Bulgaria. The council requested Prime Minister Kimon Georgiev, Minister of Interior Anton Yugov, and Minister of War Damian Velchev to contact duly authorized representatives of democratic groups not in the Fatherland Front with a view to their joining the Government. The Government submitted certain proposals which the opposition representatives must accept before being admitted to the Government, to wit: They must approve the foreign and internal policy of the Fatherland Front, comply with the basic principles of Fatherland Front policy, and agree that Parliament remain in session until March 28, the date previously determined, so that it might give its approval to the budget and to the municipal election and other laws and decide on summoning the Grand National Assembly to consider constitutional changes. For its part the Government agreed that future elections would be held with separate lists for individual parties or free coalitions of parties (instead of the single lists to which the opposition had taken exception), but stipulated that opposition parties entering the Government must end their animosity towards the Government. These terms were rejected by the opposition, who made certain counter-proposals, to wit: The Ministries of Interior and Justice must go to any party except the Communist; past internal policy could not be approved because it had been drafted by a Government and Parliament that was unrepresentative and undemocratic; the army must be national and not partisan; all parties must have access to radio broadcasting; and Parliament must be dissolved and new elections held. On January 7 Georgiev, Yugov, and Foreign Minister Petko Stainov proceeded to Moscow to seek guidance for resolving the impasse. Upon Stalin's order Deputy Foreign Minister Andrei Vishinsky went to Sofia and invited Kosta Lulchev and Nikola Petkov, leaders respectively of the Social Democrat and Agrarian Parties, to enter the Government. These leaders refused, on the ground that the Government proposals did not constitute sufficient improvement. Soviet comment was that this attitude was absurd and showed disloyaltv to the Bulgarian Government and people. The Government continued its attacks and threats against the opposition, the opposition grew more obdurate, and the Moscow agreement became a dead letter. On March 21 the Fatherland Front Government of Kimon Georgiev resigned, but the new Government formed by Georgiev on March 31 was again without representation of the opposition, which persisted in its demands that (1) the Parliament be dismissed and new deputies elected; (2) the single list ballot be abandoned; and (3) the Communists relinquish control of the Ministries of Interior and Justice.

Despite Government efforts to undermine it, allegedly involving even acts of violence, the opposition seemed to grow more united, stronger, and more outspoken. It profited by the restiveness of Zveno, the largest non-Communist component of the Fatherland Front, which it had joined only for reasons of expediency, by the dissatisfaction of the Church, and by the activity of certain student groups and of certain Macedonian activists; and in its principal spokesman, Nikola Petkov, it found a vigorous leader. After his refusal to join the Government Petkov published an open letter to Prime Minister Georgiev condemning Fatherland Front attacks upon him and demanding an investigation, and was sharply rebuked in the Government's organ, *Otechestven Front*. Zveno openly disapproved of Fatherland Front measures and tactics. It opposed confiscation of "illegally acquired property," which the Fatherland Front favored, and Vasil Yurukov, a member of Zveno's Executive Committee and editor of its *Izgrev*, spoke out against "the fierce political struggle and the destruction of political enemies." Yurukov was a close associate of Minister of War Damian Velchev and represented the Zveno view which held that Prime Minister Kimon Georgiev, fearful of the consequences of his former ill-treatment of the Communists, was now grown wholly subservient to them. Velchev himself veered from his former neutrality and incurred the anger of the Communists by testifying on June 7 that Dr. Georgi M. Dimitrov was an outstanding Bulgarian patriot and had not sought to

subvert Bulgaria's military effort against Germany, which was the principal charge against Dimitrov. Dr. Dimitrov, who had taken refuge in the United States, was sentenced to life imprisonment in absentia on July 10. Nevertheless the opposition continued to attack Zveno for its opportunism. A principal issue was the restoration of the old constitution, which the opposition desired, while Zveno favored the Fatherland Front view that its restoration would be tantamount to restoring the old regime.

At the celebration of the thousandth anniversary of the foundation of the Rila monastery on May 26 Government spokesmen first flattered the clergy by references to the glorious past of the Bulgarian Church and then criticized their continued prayers on behalf of the dynasty. The Bulgarian Orthodox Church, they declared, must become the People's Republican Church in fact as well as name. Dimitrov and the Russian Patriarch Alexei called upon the Bulgarian clergy to show greater comprehension of political realities than had the Russian Church after the 1917 revolution. On June 5 opposition papers carried a short appeal to the Exarch Stefan, advising him that the whole Bulgarian nation "expected him to defend the Bulgarian Church." Stefan made no reply and maintained a formally correct attitude. He continued public prayers for Tsar Simeon, however, and otherwise showed sympathy for the opposition. In Sofia it was said that the Fatherland Front and the Soviets would promote Stefan's desire to be elevated to the Patriarchate in return for his support.

Opposition to the Fatherland Front was also involved in certain aspects of the activity of IMRO (Internal Macedonian Revolutionary Organization, founded in 1896 to liberate Macedonia from the Turks). IMRO "nationalists" were displeased with the "federalist" position taken by the Macedonian Congress which met at Sofia on April 4. Besides deploring atrocities in Greek Macedonia, that Congress had approved a People's Republic of Macedonia within a Federated Yugoslavia and supported Slav unity under U.S.S.R. Anti-Government activities on the part of student organizations provoked a decree of (Communist) Minister of Interior Anton Yugov, with the concurrence of the Prime Minister, that none but members of the Fatherland Front might be admitted to institutions of higher learning. Government spokesmen and organs continued to threaten those opposed to the Fatherland Front. They insisted that the army and state institutions must be purged of fascists and traitors, and admonished vigilance against repetition of the coup of June 9, 1923, when the Stambolisky regime was overthrown. Communists did in fact control the army. Party members were in key positions, and non-Communist generals gave full cooperation. The system of political commissars, most of whom were Communists, ensured party regularity. Measures were also taken against the press. The Democratic Party's *Zname*, which had harshly criticized the Government, the economic policy, and the Soviet "occupation" was suspended for two months. Printers' and other unions dealing with newspapers took steps against Petkov's *Narodno Zmedelsko Zname* and the Socialist *Svoboden Narod*. The elderly and respected writer Trifun Kunev was beaten up. Petkov complained to the Prime Minister that violence was being used by the militia against members of the Agrarian Union.

At the instance of Vasil Kolarov, after Georgi Dimitrov the most important Communist figure in Bulgaria, the Sobranie voted approval of all Fatherland Front legislation enacted after September 9, 1944, and recommended further social and political legislation. Among these was the Land Reform bill, which had been approved by the Ministerial Council on January 25, calculated to provide land for peasants and create large cooperatives. Of Bulgaria's 41,450,000 decares (.2471 acres) of arable land, 38,900,000 were privately owned, 2,050,000 belonged to institutions, and 500,000 to the state. Average holdings were 72 decares in 1897, 40 in 1945. Approximately 15% of holdings were over 100 decares, 60% 30 to 100, and 24% under 15; that is, some 86% were at or below subsistence level, which was reckoned at 90 decares. Government measures as projected would seem able to provide only 4,500,000 of the 10,000,000 decares needed to give each peasant the minimum. In the September 8, 1946, plebiscite 92% of the vote was against the monarchy, and the boy king, Simeon II and his mother, Princess Ioanna, retired to Egypt. On September 15 Bulgaria was formally proclaimed a People's Republic.

In foreign relations Bulgaria was concerned to refute territorial claims put forward by Greece and to obtain British and American recognition for its Government. After long and vehement attacks on Bulgaria, including charges of repeated aggression and atrocities in the past and of currently fostering the "autonomist" bands which were allegedly responsible for violence in Greek Macedonia, the Greek Government in April submitted to the Council of Foreign Ministers meeting in Paris claims for Bulgarian territory north of Aegean Macedonia. Bulgaria rejected the claim and submitted counter claims for an outlet on the Aegean. The draft treaties which were made known at the end of July provided for reparations to Greece but left the border question undecided. In May the Sofia radio claimed that reparations to Greece had been completed; British and Greek representatives declared the statement untrue. In May also, Greece demanded the extradition, for trial as a war criminal, of General Ivan Marinov, who had commanded the occupation troops in Macedonia but had helped the Fatherland Front and was now Bulgarian Minister in Paris.

British and American recognition of Rumania made their failure to recognize Bulgaria more pointed and more irksome to the Bulgarians. American recognition was withheld because of Bulgarian failure to implement the Moscow agreement by accepting opposition representatives in the Government upon terms mutually acceptable, and American feeling was exacerbated by the cavalier treatment accorded its representation on the Allied Control Commission. The American position was communicated to General Stoichev, Bulgarian Political Representative in Washington, in an aide-memoire of February 22, with which the British associated themselves. Further exchanges failed to improve the situation. In regard to the Allied Control Commission, the United States representative, Major General John A. Crane, complained that the United States had no effective participation in the Commission, that it was not informed of decisions issued in the name of all three Allies, and that the privileges of American personnel had been arbitrarily curtailed by the Russians.

In the elections of October 27 the Government parties won 374 seats and the united opposition 101. British Foreign Office spokesmen declared the elections were fraudulent because of intimidation and other irregularities. The opposition *Narodno Zmedelsko Zname* printed obituaries of Agrarian Party members killed during the election, and the Government issued a communiqué listing those of

its adherents who had been killed. As a result of the elections Communist strength was slightly increased in the third Fatherland Front Government, formed by Georgi Dimitrov on November 22. The Government included ten Communists, five Agrarians, two Socialists, two Zveno, and one Independent, portfolios being distributed as follows: Prime Minister: Georgi Dimitrov, Communist; Deputy Prime Ministers without Portfolio: Georgi Popov, Socialist, Traycho Kostov, Communist, and Alexander Obbov, Agrarian; Sub-Prime Minister and Foreign Affairs: Kimon Georgiev, Zveno; Interior: Anton Yugov, Communist; War: Georgi Damyanov, Communist; Finance: Ivan Stefano, Communist; Education: Mincho Neychev, Communist; Agriculture: Georgi Traykov, Agrarian; Electrification: Manol Sekelarov, Communist; Industries: Khristo Lilkov, Zveno; Trade: Yurdan Bojilov, Communist; Public Works: Georgi Dragnev, Agrarian; Social Affairs: Zdravko Mitovsk, Social Democrat; Health: Racho Angelov, Communist; Railroads: Stefan Tonchev, Agrarian; Information: Dimo Kazassov, Independent; Supreme Economic Council: Dobri Tarpichev, Communist; Justice: Radi Naydenov, Communist.

Production. Agriculture is the most important occupation of the people—the chief products being cereals, potatoes, tobacco, rose oil, cotton, beet sugar, and grapes. Livestock (1945): 1,367,928 cattle, 714,576 goats, 837,931 pigs, 471,000 horses, and 6,614,899 poultry. The output of raw silk in 1943 amounted to 159 metric tons. Mineral products include coal, lignite, cement, and salt.

Finance. Budget estimates (1946): revenue 42,910 million leva and expenditures 42,910 million leva. The total public debt on Sept. 1, 1943, was estimated at 53,000 million leva.

Foreign Trade. In 1942, including bullion and specie, imports were valued at 12,929,000,000 leva; exports, 13,418,000,000 leva. For the period Jan. 1 to Aug. 31, 1943, imports were valued at 9,663,000,000 leva, and exports at 10,185,000,000. The main exports were tobacco, fruit, eggs, wheat, hides, and wine.

MOSES HADAS.

BURMA. A British possession in southeastern Asia with a population of 16,824,000 and an area of 261,610 square miles, comprising Burma proper, the Chin Hills and Kachin Hill Tracts, Shan States and unadministered territory. Burma was separated from India in 1937 under the Government of Burma Act, 1935, and given its own constitution and government. Before the Japanese occupation in 1942 the executive power was vested in a Governor (appointed by the British Crown) who was advised by a council of ministers. The Governor had control of foreign affairs. Domestic affairs were administered by a Burman ministry responsible to a Burman legislature. Large districts in the northern and eastern hill districts were excluded from the legislature's control and placed under the jurisdiction of the Governor.

Upon the Japanese invasion the British Governor, the Burmese Premier and certain other Burmese officials set up headquarters at Simla, India. The constitution was suspended. On August 1, 1942, the Japanese set up a form of government made up of a joint Burmese and Japanese administration under the nominal leadership of U Ba Maw, a former premier of Burma. With the defeat of the Japanese the country reverted to its former status. Civil government was resumed in October, 1945, when Sir Reginald Dorman-Smith, who first became governor in 1941, returned to Rangoon.

The People. At least two-thirds of the population, most of whom live in rural districts, are of Burmese origin. Indians and Chinese form large groups in the otherwise extremely diversified population.

The standard of education in Burma remains low, with only one-half of the male and fourteen percent of the female population literate. Buddhist monasteries in the villages furnish a certain amount of elementary education. Approximately eighty-four percent of the people are Buddhists. Nearly all the rest belong to Animist, Mohammedan, Hindu, or Christian sects.

Government. Pending the holding of a general election and the restoration of government under the Government of Burma Act, 1935, administration was in the hands of the Governor with direct responsibility to the British Government. On August 4, 1946, it was announced in London that Major-General Hubert E. Rance would succeed Sir Reginald Dorman-Smith, who had been absent from his duties because of illness and for whom Sir Henry Knight had served as Acting Governor. After September 26 the Executive Council assisting the Governor became a coalition body with 11 members.

Events, 1946. The year 1946 was one of political and social unrest in Burma, which the British Labor Government's offer of independence on the same terms as India, made public on December 20, was intended to allay. The preceding British Government's White Paper of May 17, 1945, had stated the Government's intention to assist Burma "to attain a status similar to that of the Dominions and this country" (see YEAR BOOK for 1945, p. 92). The early establishment of an Executive Council was envisaged, but it was announced that the existing system of administration by the Governor directly responsible to the British Government would be continued to December, 1948.

The dissatisfaction with the offer expressed by many Burmans, including the well-organized Anti-Fascist People's Freedom League (AFPFL) which refused to participate in the Executive Council named in November, 1945, unless it could have 11 of the 15 members and allocate portfolios, persisted in 1946. Early in the year the AFPFL, meeting in Rangoon, formulated criticisms of the British Government which won ready Burmese approval partly because of that Government's refusal to afford facilities for a deputation from the League to go to London and place its proposals before the British authorities. The League adopted a resolution demanding complete independence for Burma.

The League, which was in general composed of young Burmans, included members of the Communist and Socialist parties, the Communist Peasant party, trade unions, and others. As the year progressed there was a tendency for older men to join. The President was General Aung San, former Commander in chief of the pro-Japanese Burmese forces, and the General Secretary was Thakin Tan Tun, leader of the Communist Party.

The leader of the Myochit Party, U Saw, took part in the protests in February when he sent a letter (made public on May 16) to the Secretary of State threatening to withdraw the three members of his party from the Executive Council unless a satisfactory reply was received. The letter protested against the terms of the White Paper and asked for the transfer of Burmese affairs from the Burma Office to the Dominions Office.

Disorder in the Country. In the meantime much of Burma was torn by robbery, murder, and violence, with dacoity (armed robbery), always endemic in Burma, on the increase. It was reported in the

British House of Commons that in March there were in Burma (excluding the Rangoon area) 246 murders, 558 robberies with attempted murder, 785 robberies, and 347 cases of cattle theft. The decline in rice production was directly related to the increase in dacoity. Cultivators refused to live in their temporary huts near their distant fields and tended to work only those fields which could be conveniently cultivated from the villages, for fear of risking their lives. Cultivators and traders were afraid to take goods to market because the roads were not safe. It was observed that dacoits and other thieves preferred to take consumer goods, particularly cloth, of which there were serious shortages.

The police, to whom the maintenance of order was largely left instead of to the military forces, were inadequate and undermanned. In September there was a strike of the Rangoon police, soon reinforced by one of postal workers, which was on the surface, a strike for higher pay but which won public and press support and developed into a protest against the terms of the 1945 White Paper.

Coalition Executive Council. After Sir Hubert Rance, succeeding Acting Governor Sir Henry Knight, arrived in Burma, the Executive Council resigned. On September 26 it was announced from Rangoon that the Governor had been successful in forming a coalition cabinet, with 6 of the 11 seats going to members of the Anti-Fascist People's League. Aung San, the President of the League, was allotted the portfolio of Defense and External Affairs. The five seats allotted to those who were not members of the League went to U Saw, leader of the Moyochit Party; Thakin Ba Sein, leader of the Dobama Party; U Ba Thein, representing the Sinyetha Party; U Tin Tut, who was independent; and a Karen representative to be selected later. In a radio speech, Sir Hubert said it was intended that the Council should have the position that its ministerial predecessor had under the Act of 1935.

In a three-day session of the Anti-Fascist League at the beginning of November it was demanded that the Government take immediate steps to gain a seat for Burma in the United Nations. The League also adopted a resolution expelling the Communists from their ranks. Communist leader Thakin Tan Tun observed that the expulsion was "immaterial" and that "On With the Revolution" would continue to be the Communists' policy.

Offer of Independence. In spite of the improvement in the political situation after the formation of the coalition Executive Council, economic and social conditions in Burma remained disturbing and the British Government was obviously concerned about the general unrest. On December 20 Prime Minister Clement Attlee announced in the British House of Commons an offer of independence to Burma on the same terms as that to India. Attlee took cognizance of the necessity for reconsidering the White Paper plan in view of the impatience of the Burmese people and said that Britain did not desire to retain within the Commonwealth and Empire any unwilling peoples. The Prime Minister invited a Burmese delegation to come to London for a conference.

The offer was sharply criticized by Winston Churchill, Leader of the Opposition, on the grounds of its extraordinary haste. He spoke with some bitterness of the "decline and fall of the British Empire" and "the steady and remorseless process of divesting ourselves of what has been gained by so many generations of toil, administration, and sacrifice."

Economic Problems. It proved impossible to repair the economy of Burma in 1946. The devastated cities and transportation facilities could not be restored until labor, money, and materials were available. Consumer goods, used almost to the vanishing point during the Japanese occupation, remained critically short. The most serious economic problem however, was the decline in rice production.

Before the Japanese occupation Burma produced 6,000,000 to 7,000,000 tons of rice a year. About one-half of this was exported, chiefly to India. In the spring of 1946 many of the fields remained uncultivated. War damage, difficulties with marketing and prices, fear of marauding deserters or dacoits, loss of draft animals and difficulties of transportation fostered the habit of raising little more than home needs. Crop reports showed that the yield would just about suffice for those needs, leaving no exportable surplus, and that in 1947 Burma, the world's chief rice-exporting country, might itself become a deficit area. Government grants for bringing land back into cultivation and agricultural loans appeared to have little quantitative effect.

By the end of the year Burma had achieved a measure of independence in its banking and currency system, including freedom from the former tie with the Indian rupee. The Financial Adviser to the Government of Burma announced that beginning on April 1, 1947, Burma would have its own currency, managed by a currency board established in London for operation as of October 1, 1946.

Production and Trade. The chaotic economy of 1946 showed little reflection of Burma's prewar organization. Before invasion two-thirds of the people were dependent on agriculture, which was dominated by rice, both in production and export. A little rice was exported in 1945–46, but all from old stock. Ordinarily teak was the second export, and petroleum was also sold abroad in considerable quantity. Lead, tin, tungsten, and silver were important products.

ALZADA COMSTOCK.

BUSINESS REVIEW. American business experienced a postwar boom during 1946, despite a record wave of strikes. While production was retarded to some extent by labor troubles, particularly during the first half of the year, and shortages of a number of materials and parts, it was far higher than in any previous peacetime year. Rising wages and prices and larger profits for most industries were other boom phenomena. Inventory accumulation proceeded at a record pace, so that stocks of goods in the hands of manufacturers and distributors attained peak levels by the end of the year. Only here and there did consumer resistance and price reductions make their appearance, giving rise to uneasiness over the longer-term outlook.

Business developments during the year bore elements of similarity to 1919, when the post-World War I boom was in full swing. At that time also wages and prices rose sharply above wartime levels, inventory accumulation proceeded rapidly and profits were large. But that era of prosperity proved short-lived, and a severe deflation in prices and production followed in 1920. Expectations that a post-World War II recession would be of a milder character were based upon the more acute shortages of goods prevailing, the far larger purchasing power possessed by the population and the more limited extent of the rise in commodity prices that had occurred.

Comparisons of 1946 gross national product,

national income, retail sales, inventories, and other statistics stated in dollars with those of the year before are of limited significance because of the rise in commodity prices that took place during the year. With the general wholesale price level more than 30 percent higher, larger dollar figures evidently do not mean that a corresponding increase occurred in physical quantities. As during inflationary periods in the past, dollar totals were inflated by mere price changes. The rise in national income well above the wartime peak in the latter part of 1946 primarily reflected the inflationary trend of wages and prices. The physical volume of production, as measured by the index of industrial output compiled by the Board of Governors of the Federal Reserve System, at best remained some 25 percent below the all-time peak established in October, 1943, when a huge war production was superimposed upon the civilian economy.

Government Controls. While the year was marked by the liquidation of most wartime Government controls over business in existence at its beginning, including nearly all price controls, a few new business regulations were imposed to cope with particular problems. The most significant of these were issued in connection with the veterans' housing program. VHP-1, issued at the end of March, severely limited non-residential construction in order to free materials and labor for the construction of low-cost homes for veterans. The Veterans' Emergency Housing Act, enacted in May, gave veterans purchase priorities on new houses, allocated scarce building materials and provided subsidies to hold down prices of building materials. Restrictions were tightened on exports of lumber and other scarce materials.

Following the sweeping Republican victories in the November Congressional elections, which indicated overwhelming public desire to speed termination of war controls, a large number of remaining restrictions were removed and even the veterans' housing program was drastically modified in December. The Civilian Production Administration was replaced by the Office of Temporary Controls. On the final day of the year, President Truman issued a proclamation announcing the termination of hostilities, which automatically ended several wartime measures and executive powers of the President, while others were scheduled to end six months later on June 30. By the year's end, remaining controls were those affecting scarce imported materials, like rubber and tin, and several domestic materials in short supply required for building or other essential uses.

National Product and National Income. The value of the gross national product, or all goods and services produced in the course of the year, was $194,000,000,000 in 1946, according to preliminary estimates of the Department of Commerce. This represented only a slight decline from the total of $199,000,000,000 in 1945. However, the decline in the volume of goods and services produced from the wartime level was considerably greater, because of the rise in prices that occurred during 1946. In terms of 1944 prices, the Department of Commerce estimated the gross national product for 1946 at $170,000,000,000, as compared with $192,000,000,000 in 1945. Allowing for the virtual disappearance of war production, however, these figures clearly indicated a record output of civilian goods and services.

Income payments to individuals in 1946 were estimated by the Department of Commerce at $163,000,000,000, as compared with $160,000,000,000 in 1945 and $92,000,000,000 in the record prewar year 1941. Disposable income of individuals, after taxes, reached the record total of $144,000,000,000 for the year. Savings dropped to little more than half the 1945 level, and consumer expenditures jumped to $127,000,000,000, as against the previous record of $106,000,000,000 achieved in 1945.

Impact of Price Rise. Prices held reasonably stable until the expiration of the Price Control Act on June 30. Although controls were temporarily reimposed under a modified measure signed by the President on July 25, they were never truly effective again. The new law required items unimportant to living or business costs to be freed of price control. The termination of meat price controls in October was followed on November 9 by termination of all ceilings except on rents, sugar and rice. During the second half of the year, wholesale prices rose 24 percent and the consumers' price index of the Department of Labor advanced 15 percent. Farm products, foods, textiles and chemicals showed the sharpest price advances. These price increases outstripped the increase in national income by a considerable margin. The tendency for the actual purchasing power of the population to decline because of the increase in prices is illustrated by the following table translating per capita disposable income into 1944 dollars (taken from the Economic Report of the President):

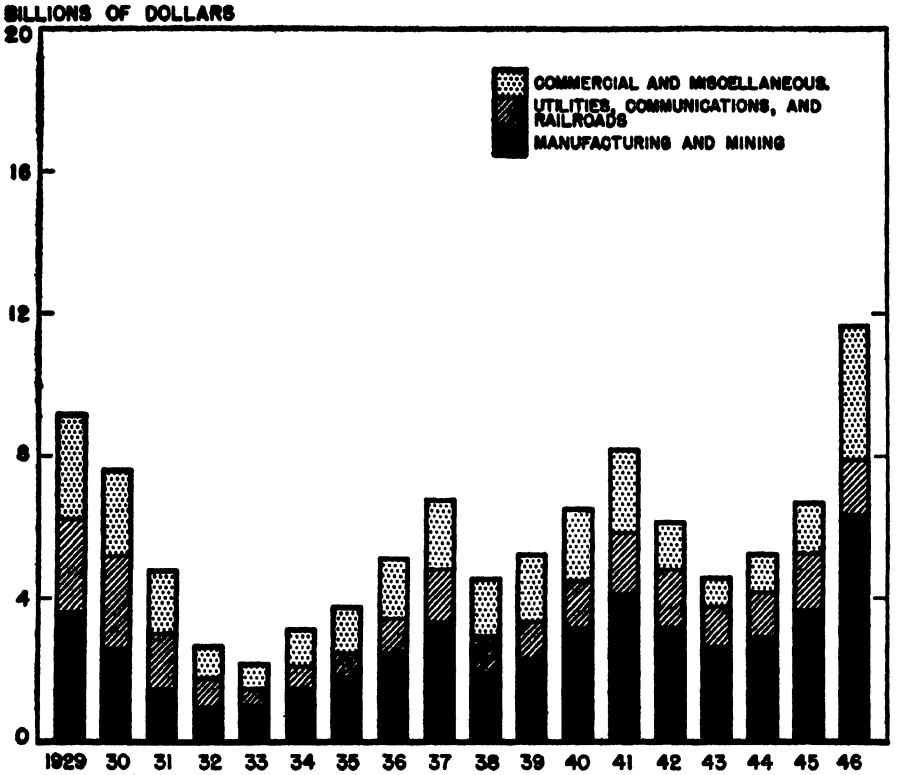
PER CAPITA DISPOSABLE INCOME

Year or Quarter	*Actual Dollars*	*1944 Dollars*
1935–39 (average)	497	623
1944	995	995
1945	1,000	978
1946	1,026	925
Seasonally Adjusted Annual Rates		
First quarter	983	950
Second quarter	1,008	958
Third quarter	1,054	921
Fourth quarter	1,060	880

Construction. Building activity expanded at an unprecedented pace during the year. From a total of $476,000,000 in January, the value of new construction increased month by month to a peak in August of $1,075,000,000, a level never reached before in peacetime. A seasonal decline in activity, exaggerated to some extent by resistance to higher construction costs, brought about a decline from this high level in the final months of the year. Increased production of building materials relieved bottlenecks that had greatly added to building costs by holding up completion of projects, so that actual construction costs tended to decline somewhat even though wages and material prices remained high.

Residential construction showed the sharpest increases under the spur of the veterans' housing program, but industrial and other non-residential building also were expanded greatly, despite restrictions. Industrial building for the year established a new high record as numerous projects held back during the war were started. Plant and equipment expenditures by industry dwarfed the previous peaks of 1941 and 1929.

The high level of building activity, as during the 1920's, was reflected throughout the economy. It resulted in greatly increased demands for numerous materials, as well as for labor. But residential construction fell short of the goals set by the Federal housing program, originally 1,200,000 dwelling units to be started, of which 838,000 were to be permanent. Prefabricated housing especially fell short of the mark. But more new dwellings were started than in any year since 1928, except 1941. It



EXPENDITURES FOR NEW PLANT AND EQUIPMENT

was evident that several years of expanded construction would be needed to relieve the very acute housing shortage left by the war.

Durable Goods Industries. Output of durable goods industries was hardest hit by the wave of major strikes in the first half of the year. With the restoration of industrial peace, production climbed and during the last half of the year it reached the highest level since V-J Day. Aggregate output of durable goods, however, remained far below the abnormal wartime level, for most munitions were classified as durable goods for statistical purposes.

Production of minerals compared favorably with that of the war period, except for the late spring when coal and copper strikes reduced output. Removal of price controls emphasized the inadequate domestic supplies of most non-ferrous metals, and it was necessary for consumers to bid for imports at rising prices.

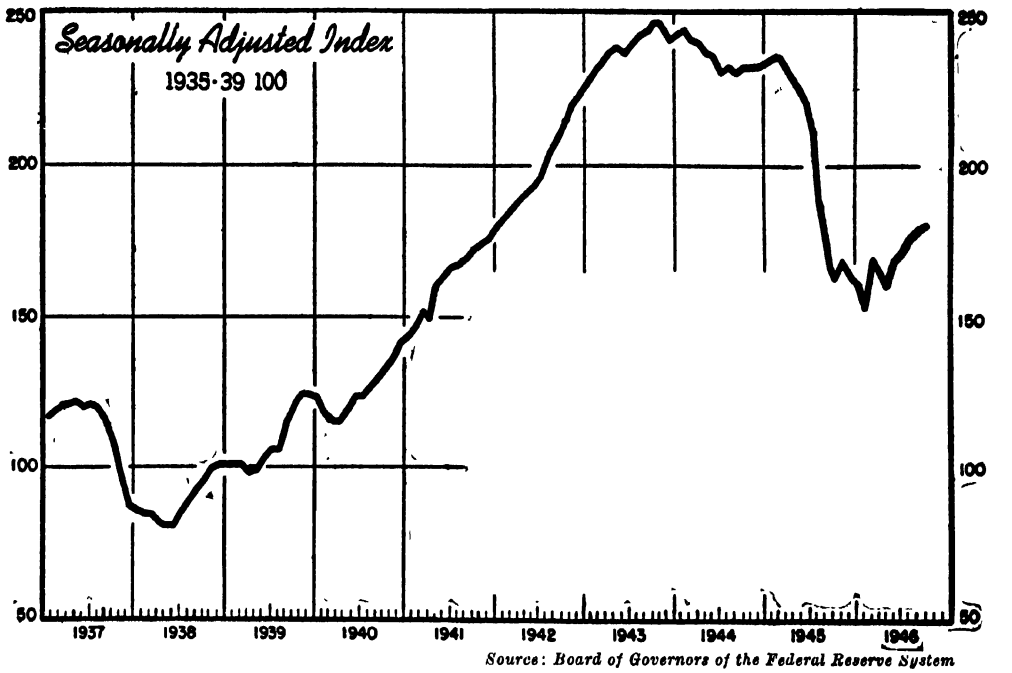
Production of producers' durable goods was severely handicapped by materials shortages intensified by the steel and other strikes. Railroad equipment output, for example, was only about 50 percent of the 1941 level. Despite a critical car shortage, manufacturers were not able to step up their schedules until the Civilian Production Administration in the third quarter intervened to help secure needed steel. Agricultural machinery output also was hampered by strikes in plants making these products and in factories of suppliers, but a substantial increase in production was achieved in the last half of the year, so that for 1946 as a whole gains in output of 10 percent as compared with 1945 and 35 percent as compared with 1941 were achieved. In other branches of machinery manufacture, a similar pattern prevailed, with production increases shown for the second half of the year.

The automobile industry, the most important of consumer durable goods lines, was bedeviled by strikes, work stoppages in plants of suppliers and unbalanced inventories of materials that limited output and compelled many factories to close down sporadically for short periods. Production in 1946, the first full year in which the industry could produce for civilian use, aggregated 2,155,924 passenger cars and 940,583 trucks. Even at the end of the year, however, materials shortages were limiting production to a level well below capacity, although the industry was in position to sell every vehicle it could turn out. Output of other consumer durable goods increased sharply in every case, so that by the end of the year it was far above the prewar rate in radios, electric ranges, washing machines and vacuum cleaners, at the prewar rate in mechanical refrigerators, but well below that rate in sewing machines.

The progress made in expanding durable goods output is shown in the following table comparing output for October, the best month of the year as regards industrial production, with the same month of 1945:

DURABLE GOODS PRODUCTION
(1935–39 average = 100)

	Oct. 1945	*Oct. 1946*
Iron and steel	146	183
Machinery	232	268
Automobiles	120	190
Lumber	76	126
Furniture	120	154
Plate glass	50	158
Cement	106	156
Clay products	116	147
Gypsum and plaster products	177	215
Abrasive and asbestos products	218	251
Durable Manufactures—Total	186	214



Source: Board of Governors of the Federal Reserve System

INDUSTRIAL PRODUCTION

Consumer Non-durable Goods. Production of consumer non-durable goods held at a high level during the year, well above that of the second half of 1945. The textile and other industries were benefitted by some improvement in the volume and quality of available labor, as well as by larger supplies of certain materials and fuel. Termination of Government controls in the latter part of the year also helped to increase output of many items.

Production of non-durable manufactures in October, 1946, as compared with the same month of 1945, is shown in the following table:

NON-DURABLE GOODS PRODUCTION
(1935–39 average = 100)

	Oct. 1945	*Oct. 1946*
Textile fabrics	131	156
Cotton consumption	128	155
Rayon deliveries	215	242
Carpet wool consumption	93	143
Apparel wool consumption	191	230
Woolen and worsted cloth	149	181
Leather tanning	107	97
Shoes	116	130
Wheat flour	129	135
Butter	72	79
Cheese	155	164
Canned and dried milk	156	142
Meat packing	129	115
Pork and lard	99	116
Beef	159	107
Veal	197	140
Lamb and mutton	134	131
Processed fruits and vegetables	128	167
Confectionery	108	123
Alcoholic beverages	201	206
Cigars	111	127
Cigarettes	216	226
Pulp	154	163
Paper	137	144
Printing and publishing	115	132
Gasoline	129	146
Coke	116	67
Paints	139	148
Soap	124	111
Rayon	238	271
Industrial chemicals	371	403
Rubber products	191	228
Non-durable Manufactures—Total	154	171

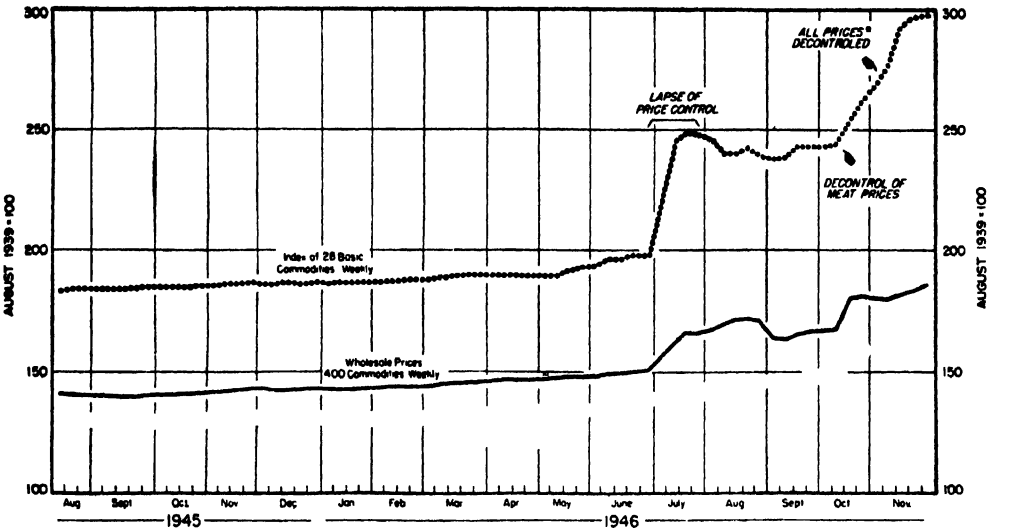
Retail Trade. An unprecedented demand for consumer goods and services lifted retail trade to the highest level ever recorded. While a large part of the increase in sales reported by retailers reflected higher prices, there was also an increase in the physical volume of goods sold, particularly of durable goods and other items that were not available in wartime. Consumers financed this buying rush chiefly through reducing current savings. Near the close of the year, there was some tendency for consumers to shift their purchases from non-durable goods to the durables which were in short supply, with the result that retailers found it necessary to mark down prices of some products. This was particularly true of sub-standard goods and those in the high price ranges.

Department stores, like other groups of retailers, enjoyed a record year. Indices for both sales and inventories for each month of 1946, with comparisons for 1945, follow:

DEPARTMENT STORE SALES AND INVENTORIES
(1935–39 average = 100)

	Sales		*Inventories*	
	1945	*1946*	*1945*	*1946*
Jan.	198	227	148	167
Feb.	211	251	149	171
March	220	260	148	177
April	182	252	156	189
May	188	258	165	200
June	202	275	181	211
July	218	273	189	223
Aug.	200	290	187	221
Sept.	200	269	171	226
Oct.	213	257	164	237
Nov.	222	273	165	255
Dec.	218	274	158	274
Average for year	207	263	166	213

The widest gains were enjoyed by mail order houses and other retailers serving the agricultural population, whose income was boosted quite sharply by the upturn in farm prices during the later months of the year. Increases in sales of almost 100



Source: *Department of Labor* * Except sugar, syrup, rice, and rents.

MOST OF PRICE RISE OCCURRED AFTER JUNE

percent were reported during the fall months by mail-order organizations.

Inventory Expansion. A striking development of the year in all fields of business was the expansion of inventories. In part, this increase stemmed from the increased availability of goods and the ability to rebuild stocks that had been depleted by the war. In part, it reflected the rise in prices, which both increased inventory values and made it attractive for business to carry a larger stock of goods in order to benefit from price increases. A third factor was shortages of "bottleneck" materials and parts, which caused a marked expansion of inventories of goods in process that could not be completed until the items in short supply could be received.

When the war ended, about $5,000,000,000 of inventories of war materials were turned over by contractors to the Federal Government. In the period following V-J Day, business not only replaced these termination inventories with civilian products, but also expanded inventories by an additional $7,000,000,000 between V-J Day and October, 1946. This meant that manufacturers', wholesalers' and retailers' inventories were stepped up by $12,000,000,000 during this fifteen months' period. About half the increase was due to price increases, and the other half to an expansion in the size of stocks on hand.

The great increase in the volume of turnover made larger inventories necessary, but a good deal of concern developed over this problem nevertheless. In the first place, these inventories were unbalanced, chief increases occurring in raw materials and goods in process. Inability to secure certain raw materials and component parts resulted in expanding goods in process to uncomfortable proportions for many manufacturers. Secondly, it was recognized that this increase could not go on indefinitely, and that a point would be reached at which inventories would at best become stabilized. At that point, production could be maintained only if all current output were sold to consumers. Expansion of inventories, or "filling the pipelines" as it was commonly termed, provided a strong but necessarily temporary stimulus to business.

Commodity Prices. The very gradual rise in wholesale prices that occurred during the war was continued at a somewhat faster pace during the first half of 1946, with growing pressure upon the Office of Price Administration to lift ceilings because of higher costs. When the grant of a wage increase of 18½ cents an hour to steel workers in February established a pattern for wage rates, it became evident that the OPA would have to grant numerous upward adjustments in price ceilings, even if the price control law would be extended. When the law lapsed on June 30, there was a spurt in prices, and reimposition of controls late in July merely slowed down the pace of the rise. When meat price ceilings were ended in October, the whole structure of price regulation collapsed and was terminated by the President's proclamation of November 9 which stated that "the law of supply and demand operating in the market place will, from now on, serve the people better than would continued regulation of prices by the governmnent."

The consequences of the termination of price controls were neither as limited as many advocates of such action had claimed, nor as drastic as more enthusiastic advocates of a continuing OPA had predicted. While the index of wholesale prices rose 24 percent during the last half of the year, and the consumers' price index advanced 15 percent, part of this rise was illusory because many buyers could not previously purchase goods at ceilings, but had to pay premiums on the black market. Furthermore, a part of the increase reflected elimination of subsidies, which was of small concern to the consumer but did involve savings to the Government.

Foods and farm products showed the sharpest

WHOLESALE COMMODITY PRICES
(1926 = 100)

Commodity group	*1945*	*1946*
Farm products	131.5	168.1
Foods	108.6	160.1
Building Materials	119.5	157 8
Chemicals and allied products	96.1	125.7
Fuel and lighting materials	84.8	96.1
Hides and leather products	118.9	176.7
Housefurnishing goods	104 7	120.2
Metals and metal products	105.6	134.7
Textile products	101.4	134 7

Source: U.S. Department of Labor

gains for the year. Wholesale prices of major commodity groups compared in December of 1945 and 1946 as shown in the table on page 116.

Price changes for major commodity groups following decontrol compared with increases under the Price Control Act as follows:

PERCENTAGE CHANGES IN WHOLESALE PRICES

Commodity Group	May 1946–June 1946	June 29, 1946–Nov. 9, 1946	Nov. 9, 1946–Nov. 30, 1946
All commodities	14 3	19.6	3.2
Farm products	34.2	18.3	2 6
Foods	14.2	43.3	.7
All commodities other than farm products and foods	10.3	9.6	4.8
Hides and leather	3.0	28.2	4.0
Textiles	11 4	20.0	.4
Fuel and lighting	12.6	8 2	1.2
Metals and metal products	8.0	2.5	15 2
Building materials	18.0	7 4	3.1
Chemicals and allied products	−.1	13.7	12.3
Housefurnishings	7.3	6.1	.7
Miscellaneous	8.8	7.2	1.7

Source: U.S. Department of Labor.

Actual prices of important commodities at the end of the year compared as shown below:

PRICES OF IMPORTANT COMMODITIES
(End of December)

Commodity	1945	1946
Wheat #2, K.C., bu.	$1.69½	$2.03½
Corn #3, yellow, Chi., Bu.	1.16½	1.32½
Flour, bbl.	3 70	6.25
Pork loins, lb.	.25½	.43
Butter, extra, lb.	.46½	.78
Eggs, firsts, doz.	.433	.37
Potatoes, white, bag	1.50	2.35
Canned peaches, doz., factory	2.34	2.55
Sugar, Cuban, raw, lb.	.0375	.0594
Coffee, Santos, lb.	.18½	.26½
Cocoa, Acera, lb.	.0899	.26½
Cotton, Galveston, lb	.2439	.3310
Print cloths, yd.	.09906	.1825
Wool, territory, Boston, lb.	1.05	1.15
Silk, raw, lb.	3 08	6.25
Rayon, viscose, lb.	.55	.62
Pig iron, Valley, ton	25 75	30 00
Steel bars, Pittsburgh, 100 lbs.	2 20	2 60
Copper, lb.	.12	.19½
Zinc, E. St. Louis, lb.	.08½	.10½
Lead, lb.	065	.1255
Sulphuric acid, ton	16.50	16 50
Soda, caustic, 100 lb.	2 00	2.10
Southern pine, K.C., 1,000 ft.	54.97	65.00
Turpentine, gal.	.93½	1.55
Linseed oil, lb.	.115	.355
Coal, bituminous, ton, Clearfield	3 38	3 96
Coal, anthracite, ton	8 85	10.15
Petroleum, crude, K.O., bbl.	1.17	1.62
Bunker oil, C., bbl.	1 51	1.92
Rubber, lb.	.22½	.22½
Hides, heavy native, Chi., lb.	.15½	26

Source: Journal of Commerce, quotations for New York City unless otherwise indicated.

The cost of living index lagged behind the wholesale price index, as usual when price fluctuations occur. In the first place, some component elements were not affected by the advance in wholesale prices. For example, rents and public utility rates remained practically unchanged to the end of the year. Secondly, retail prices of many products were not marked up as rapidly as wholesale, particularly where distributors had large stocks of goods on hand acquired at lower prices. Furthermore, consumer resistance brought sharp declines in a number of individual commodities from high levels established immediately after the end of controls. Meats, lard and butter are examples of commodities that were quoted at the close of the year substantially below the high prices reached in October.

A striking development in the commodity markets was the break in raw cotton following a spectacular rise brought about by the very short crop and the keen consumer demand for cotton goods, causing record domestic consumption of the fiber. Cash cotton was quoted in New York at almost 40 cents a pound on October 2, a rise of 70 percent over the price of the year before. Late in October, however, a rush to sell raw cotton developed that forced the cotton futures exchanges to close on three occasions. By October 29, the quotation had fallen to somewhat under 30 cents a pound, and recovered only to a limited extent subsequently. This break in the price of cotton contributed to the feeling of uneasiness over the inventory situation in other industries as well. However, the gyrations of the cotton market did not interfere with sustained production of textiles and the ability of manufacturers to sell their high output of standard textile products at prevailing prices.

Business Profits. Elimination of the excess profits tax and price increases raised business profits to record levels. Corporate profits after taxes were estimated by the Department of Commerce at $12,000,000,000, which compared with a previous record of $9,945,000,000 in 1943, and profits after taxes of $9,080,000,000 in 1945. Profits before taxes were estimated at $20,000,000,000 for 1946, little changed from $20,875,000,000 in 1945. Profits of leading corporations in major industries compared as follows during the first three quarters of 1945 and 1946:

NET INCOME OF LEADING CORPORATIONS FOR THE FIRST NINE MONTHS
(*In thousands of dollars*)

Industrial Groups	1945	1946	% Change
Food products	$ 58,655	$ 84,382	+43.9
Pulp and paper products	18,898	44,242	+131.6
Chemicals, drugs, etc.	135,028	201,516	+49 2
Petroleum products	182,345	190,340	+4.4
Cement, glass and stone	26,474	40,303	+52.2
Iron and steel	122,338	174,580	+42.7
Electrical equipment	66,332	19,953	−69.9
Machinery	20,589	23,126	+12.3
Autos and equipment	165,450	22,360	−86.5
Other metal products	65,142	75,468	+15.9
Miscellaneous mfg.	47,677	107,603	+127 6
Total manufacturing	908,928	983,873	+8 2
Mining and quarrying	44,224	50,320	+13.8
Trade (whol. and retail)	21,181	54,340	+157 1
Service	7,959	11,619	+46 0
Total	$982,292	$1,100,152	+12.0

Foreign Trade. Foreign trade of the United States shifted during 1946 to a large extent from Government to private channels. Though exports declined sharply from the wartime level, when they reflected huge shipments of munitions and supplies abroad to our Allies under lend-lease, they were far higher than in the prewar years. A considerable part of the export total represented donations, including UNRRA shipments and supplies sent to areas occupied by American troops. Approval by Congress of a $3,750,000,000 credit to Great Britain and loans made by the Export-Import Bank helped to maintain sales abroad.

During the first year following V-J Day, American exports aggregated $8,800,000,000, while imports totaled $4,400,000,000. As in domestic trade, the figures were affected by higher price level. Demand for American goods was particularly keen owing to pressing needs for reconstruction and re-equipment abroad. The United States was the one major source of supplies for a number of manufactured goods, so that this country's exports were limited chiefly by inability of manufacturers to satisfy needs and limited dollar resources of some countries abroad.

JULES I. BOGEN.

CAMEROONS, British. A territory in British West Africa, administered by Great Britain under a League of Nations mandate conferred on July 20, 1922. The mandated territory was one of the three African territories proposed for United Nations Trusteeship in the British *White Paper* of June 24, 1946. Area, about 34,081 square miles. Population, 831,103. On lowland plantations, cacao, rubber, fruits, and nuts are grown. Uplands produce mahogany and other timber. The mandate is administered as a part of Nigeria.

CANADA. A dominion of the British Commonwealth of Nations, comprising nine provinces and two territories, with a land area of 3,695,189 square miles. Population (estimated) in 1945, 12,119,000. Capital, Ottawa.

Government. Executive authority is exercised in the King's name by the Governor General of Canada acting through a responsible ministry. Legislative power rests in two houses: a Senate of 96 members appointed for life on a geographical basis by the Governor General, and a House of Commons of 245 members elected for five years (unless dissolved earlier) by popular male and female suffrage, on a basis proportional to the population. The nine provinces have a large measure of local autonomy, with a separate parliament and administration for each. A lieutenant governor, appointed by the Governor General, heads each provincial executive. Governor General, Field Marshal Sir Harold Alexander, assumed office April 12, 1946.

The Liberal Government returned to power as a result of the election of 1945 was headed by William Lyon Mackenzie King, Prime Minister, President of the Privy Council and Secretary of State for External Affairs. Other important portfolios included the following: Minister of Justice and Attorney General of Canada, Louis St. Laurent; Minister of Finance, James L. Ilsley; Minister of Munitions and Supply and Minister of Reconstruction, Clarence D. Howe; Minister of Agriculture James G. Gardiner; Minister of Trade and Commerce, James A. MacKinnon; Minister of Labor, Humphrey Mitchell. For changes in 1946, see below.

Events, 1946. Because of heavy international demands on the energies of Canadian leaders and on the resources of the economy the year was one of readjustment as well as one of the anticipated reconversion. Canada's prestige as a middle power was at its highest. By the end of the war the country had risen to fourth place among industrial nations and had so strengthened its financial position that it was possible to extend credit to a number of foreign nations.

Diplomatic and trade representation in foreign countries was being extended. Participation in Commonwealth conferences, in the sessions of the organs of the United Nations and in the first peace conference kept Canadian officials traveling and required the discovery of new men who gave promise of skill in international negotiations.

Prime Minister King had been at home only a month after the sessions of the Commonwealth prime ministers when he left again for the Paris Peace Conference, accompanied by Brooke Claxton, Minister of National Health and Welfare, and by several other officials. The Prime Minister's stay in Paris was brief, but Claxton, who remained at the conference, made clear Canada's position on the terms for Italy. Canada stood against overharsh conditions and in favor of provisions that would give Italy a chance to recover and take her place in the world economy.

Participation in United Nations. Many of Canada's efforts at the meetings of the United Nations General Assembly and the committees and commissions in New York in the closing months of the year had to do with efficiency of operation, relief, disarmament and atomic energy. The leader of the Canadian delegation at the opening of the sessions was Louis St. Laurent, who had been appointed Minister of External Affairs, replacing Prime Minister King in that capacity, early in September.

On October 1 and again on December 1 Canada requested the United Nations to consider all possible means of saving time at the meetings of the General Assembly which opened on October 23. As the most important middle power, Canada apparently saw no necessity for making speeches for home propaganda purposes of the kind that large and small powers found desirable. Expenses of the delegation in New York were heavy and home duties pressed the delegates. On December 1 Canada offered a specific plan, which included the elimination of repetitious arguments, selection of the most qualified delegates to serve as committee and commission chairmen, and careful drafting of resolutions, amendments, and conventions by an expert central drafting bureau.

Canada supported the Union of South Africa in the latter's demand that India's complaint against South Africa for racial discrimination be referred to the International Court of Justice. St. Laurent made an extended speech on the subject, arguing that the South African discriminatory legislation concerned matters within the country's domestic jurisdiction.

Canada's contributions to world relief needs were praised on December 5 in the Economic Committee by Fiorello La Guardia, Director General of UNRRA, with the suggestion that Canada serve as a committee of one to draw up a plan for future action. Responding to the challenge, Canadian delegate Paul Martin offered such a plan in an amendment asking for committee study and report. In the matter of arms Canada offered a resolution calling for the reduction of armaments.

Canada was especially active in connection with the question of the control of atomic energy, as it was discussed in the Atomic Energy Commission (which included all Council members and Canada) at Lake Success. In attempting to work out a practicable compromise between the American Baruch proposal that the veto be abolished for punishment for violating the agreement and the opposing program upholding the veto, Canadian member General A. G. L. McNaughton patiently and persistently backed mediation with the offer of compromise resolutions.

Aid to Britain. In February, 1946, not long after the American loan to Britain was negotiated, a delegation headed by Sir Wilfred Eady of the British Treasury and Deputy Governor C. F. Cobbold of the Bank of England came to Canada to discuss the terms of a possible loan by that country. They were successful in making arrangements for a loan of $1,250,000,000 at two percent, which was approved by the House of Commons on May 7 by a vote of 167 to 6 and by the Senate a few days later without a recorded vote. This action brought Canada's aid to Britain since the beginning of the war to more than $5,000,000,000.

By the end of the first half-year of 1946 Canada had also made loans amounting to $577,500,000 to France, Belgium, China, Czechoslovakia, the Netherlands, the Netherlands East Indies, Norway and Russia. The largest of the loans, all of which were made under the Export Credits Insurance Act, was

the sum of $242,500,000 to France. Sums granted in these instances were to be used for the purchase of goods in Canada.

Commodity Contracts. In the early months of 1946 negotiations were going on for a long-term wheat contract with Britain. The negotiations were difficult and protracted, largely because of opposition from American wheat growers, but the three countries involved were successful in avoiding the handling of formal protests. The agreement, the completion of which was announced on July 25, provided for the purchase by Britain of Canadian wheat over a four-year period beginning August 1, 1946, on the following terms: 160,000,000 bushels for each of the first two years at a fixed price of $1.55 a bushel; 140,000,000 bushels in the third year at a minimum price of $1.25, with actual price to be negotiated by December 31, 1947; and 140,000,000 bushels in the fourth year at a minimum price of $1.00, with the actual price to be negotiated by December 31, 1948.

The contract was actively opposed by Canadian wheat growers, who hoped that the 1946 high price of wheat would be permanent. In their campaign against the agreement they attempted through newspaper advertisements to make use of any existing Canadian prejudice against "British Socialism" and "colonial status" for Canada. Even after the settlement the contract was under criticism. The president of the Winnipeg Grain Exchange, George S. Mathieson, told the Empire Club of Toronto on November 7 that the contract had been entered into by the Liberal Government as a means of "weakening the forces of political opposition in the West."

Replying to such charges as these, the Minister of Agriculture, James G. Gardiner, dealt with the wheat price question in an address to the Agricultural Institute of Canada in Montreal on December 17. Gardiner showed the low returns to growers under such control schemes as those in force in Argentina and Australia and reminded his audience of the price drop from $2.22 to 93 cents after World War I, the distress of the growers at that time and the heavy burden laid upon the nation's taxpayers for subsidizing the wheat growers in the depression.

An Anglo-Canadian beef contract providing for the sale to Britain of a minimum of 120,000,000 pounds of Canadian beef in 1947 was announced by the Agriculture Department on October 9. The agreement covered a maximum at the same amount in 1948. Other special contracts for the sale of commodities to Britain included flax, eggs, apples, peas, beans, raspberry pulp, plum pulp and newsprint.

Relations with the United States. The dissolution of the joint United States–Canada War Production Board, which since 1941 had coordinated the industrial output of the two countries for war purposes, was announced on January 12 in a joint statement by Prime Minister King and President Truman. On April 8 announcement was made of an agreement authorizing the sale to Canada for $12,000,000 of defense installations and equipment placed in Canada by the United States. The list was made up of installations and equipment along the Alaska Highway, weather stations in northeastern Canada and surplus movable property, including naval and air equipment provided to Britain under lend-lease arrangements and left in Canada. The United States agreed to make available to Canada additional surplus equipment costing not more than $7,000,000 to be used in training Canadian armed forces.

Prime Minister King arrived in Washington on October 27 for his first conference in more than a year with President Truman. Reporting on the conference, as well as on his visit to the General Assembly of the United Nations in New York, King declined to give his cabinet on October 29 details of the Washington meeting except to say that it was "long and interesting."

Espionage Investigation. Through much of the year the government and the courts were occupied with an espionage investigation concerning Canadian citizens acting in behalf of the Russian Government. Little news reached the public until February, 1946, but detailed information as to earlier events was contained in the reports of the Royal Commission on Espionage established at that time.

According to the 733-page report of the Taschereau-Kellock Royal Commission published in June, 1946, it was on the night of September 5, 1945, that Igor Gouzenko, a cipher clerk in the Soviet Embassy in Ottawa, took to Canadian authorities a series of documents to prove that "public officials and other persons in positions of trust or otherwise have communicated, directly or indirectly, secret and confidential information, the disclosure of which might be inimical to the safety and interests of Canada, to the agents of a foreign power." Gouzenko, who had been favorably impressed by the democratic methods used in Canada, told the Commission that the fact that Russia was preparing for a third world war was freely talked about at the Russian Embassy in Ottawa.

Texts of two orders-in-council dealing with espionage were made public on February 26, 1946. The first, dated October 6, 1945, stated that the Canadian Government had knowledge of such activities and ordered detention of persons involved according to the discretion of the Acting Prime Minister or the Minister of Justice. The second, signed on February 5, 1946, empowered the Royal Commissioners to make interim reports on matters related to the subject, together with the evidence and the findings on that evidence. The Royal Commissioners were Justice Robert Taschereau and Justice R. L. Kellock.

Counsel for the Royal Commission announced on February 23 that oral and documentary evidence confirmed the serious nature of the disclosures, and that eleven men and two women were under detention in connection with the leakage of information to a foreign mission. In the course of the year persons found to be implicated were charged and appeared before various courts in Canada.

Dr. Alan Nunn May, a British temporary civil servant who was in a research group that came to Canada and worked at a Montreal laboratory, was tried in Britain and sentenced to ten years in prison. He was known in the communications with Moscow as "Alek." James Benning, an official of the Canadian Department of Munitions and Supply, was given a five-year term by the Ottawa Supreme Court. Benning was credited with supplying the Russians with seventy documents including notes and reports on the North American Coordinating Committee.

Other persons charged included Fred Rose, Labor-Progressive member of Parliament for Montreal-Cartier, who lost an appeal and on December 20 was sentenced to six years in the penitentiary on the charge of violating the Official Secrets Act; Agatha Chapman, Bank of Canada economist and English-born great-granddaughter of Sir Charles Tupper, one of the fathers of Confederation, who was acquitted, and Harold S. Gerson, employed in

the Department of Munitions and Supply, who received a five-year sentence. Eighteen persons in all were charged in 1946, nine were sentenced and five were acquitted.

The Royal Commission found that a "Fifth Column" existing in Canada was organized and directed by Russian agents in Canada and Russia and that within it there were several spy rings. It found that the major part of the information transmitted to the Russians was through the agency of Canadian public servants, highly educated men and women, working under oaths of allegiance. Persuasion was accomplished in most cases, as in the case of scientists employed at the National Research Council in Ottawa, by inducing them to join discussion groups for the study of Communism.

Ministerial Changes. A number of important changes in cabinet and diplomatic posts were made in 1946. When the King's New Year's honors list was published at the beginning of the year the names of J. L. Ilsley, Minister of Finance, and Louis St. Laurent, Minister of Justice, were added to the small and select list of Canadian members of the Imperial Privy Council.

On April 2 the House of Commons approved a bill to establish a separate Ministry of External Affairs, to which Louis St. Laurent was appointed as Minister on September 4, succeeding Prime Minister King, who had served both as Prime Minister and External Affairs Minister. Announcement was made at the same time of the appointment of Norman Robertson, Under-Secretary of State for External Affairs, as High Commissioner to the United Kingdom, of Ambassador to Washington L. B. Pearson to succeed Robertson, and of Hume Wrong, Associate Under-Secretary for External Affairs, to succeed Pearson.

Further changes were made early in December. Finance Minister J. L. Ilsley was made Minister of Justice, a move which made it possible for St. Laurent to give all his time to External Affairs; and Defense Minister Douglas Abbott was appointed Finance Minister. National Health and Welfare Minister Brooke Claxton succeeded Abbott as Defense Minister and Secretary of State Paul Martin was transferred to National Health and Welfare. Air Minister Colin Gibson was named Secretary of State. The defense forces, army, navy, and air, were unified under the Ministry of Defense headed by Claxton. In the course of the year many changes were made in the higher posts of the foreign service.

Parliamentary Session. The second session of the 20th Parliament, opened on March 14 by the Duke of Athlone (shortly to be succeeded as Governor General by Viscount Alexander) and ended on August 31, was long and fruitful. Its achievements included the approval of the loan to Britain, the establishment of Canadian citizenship and preparations for the adoption of a Canadian flag, work on the extension of foreign exchange control and application to the United Kingdom Parliament for a constitutional change involving the redistribution of seats in the House of Commons.

Prime Minister King's Liberal Party had a slender majority in the House of Commons, but this was raised to five with the victory of a Liberal candidate in the by-election in Richelieu-Verchères (Quebec) in December. The unique position occupied by King in Canadian public life was emphasized at a dinner given him on June 18 by members of Parliament and the Parliamentary Press Gallery on June 18. Between December 29, 1921 and June 10, 1946, King was in office for nineteen years, passing by a few days the record formerly held by the Conservative leader, Sir John A. MacDonald.

Flag and Citizenship. Early in the 1946 session of Parliament a joint Commons and Senate Committee was set up to deal with the design for a Canadian flag. The committee handled more than 2,000 designs, meeting opposition, especially from Quebec, on those which included the Union Jack. The flag recommended contained the Union Jack "covering between one-fourth and one-ninth of the total flag area," and the matter was finally put over until the next session of Parliament.

The status of Canadian citizenship was at last clearly defined in the 79th year of Confederation by the 1946 Parliament. The law provided that beginning on January 1, 1947, citizens of Canada would be officially known as "Canadians" and their passports would bear the words "Canadian citizen" instead of "British subject."

Dominion-Provincial Relations. By means of a shift of plan some progress was made in the field of Dominion-Provincial fiscal relations, although many difficulties were met and considerable friction was engendered. The background was the publication of the Report of the Royal Commission on Dominion-Provincial Relations (the "Rowell-Sirois Report") in 1940, the agreement announced on January 15, 1942, by which the Dominion Government had a monopoly of personal income and corporation taxes, as well as succession duties, until a year after the end of the war, paying compensation to the provinces (see YEAR BOOK for 1942, p. 114), and a series of unsuccessful conferences.

In August, 1945, the Dominion proposed a three-year agreement with the provinces, under which the Dominion would keep these taxes and reimburse the provinces with a $12 per capita subsidy, to rise with increases in the population and national income. The Coordinating Committee of the Dominion-Provincial Conference, established in the preceding August, met in Ottawa in January, 1946, to work out revisions. The Committee consisted of Prime Minister King and the premiers of the nine provinces. The conference was not regarded as a failure, although Premier Drew of Ontario continued to insist on autonomy for Ontario, Premier Duplessis of Quebec appeared to take a somewhat similar position, and the rest of the provinces presented a far from solid front.

Another in the lengthy list of Dominions-Provincial conferences expired on May 3, after five days of meeting, because of the failure of the ten governments even to approach agreement. The Quebec premier left earlier, and a flare-up between Premier Garson of Manitoba and Premier Drew of Ontario followed. Ontario and Quebec were still obdurate and the demands of the other provinces were still varied. The conference adjourned *sine die* and neither Prime Minister King nor Finance Minister Ilsley would answer a query as to whether there would be other attempts at agreement.

Shortly after this adjournment Drew began to plead for further conferences, but without result. Premier Garson of Manitoba, speaking before the Council of Social Agencies of Winnipeg on June 3, said that Drew's large demands from the Dominion were the "immediate occasion" of the suspension of the conference.

Revised Dominion Proposals. In the budget put before the House of Commons on June 27 a revised Dominion offer of $15 per capita, first made in the preceding January, was the highlight of the otherwise undramatic financial statement. Payment would be adjusted to changes in population and gross national production. Income and corporation taxes (with some slight exceptions for the latter)

would go to the Dominion, and such provinces as levied succession duties would accept appropriate reductions in payments from the Dominion. The term of the agreements would be five years.

In reply to further attacks on the central government by Premier Drew of Ontario, Prime Minister King made public on October 18 a letter he had sent to Drew, saying that the people of Canada had not forgotten the circumstances which occasioned the adjournment of the conference in May, and that it was the situation revealed there which caused the Dominion to feel that it would be inadvisable to have a conference until the provinces indicated their attitude towards the proposals.

The Dominion therefore proceeded to make agreements with the separate provinces, a process which drew further attacks from Premier Drew. Manitoba, Saskatchewan and New Brunswick concluded agreements early, and by December terms with Alberta, British Columbia, Nova Scotia, and Prince Edward Island were ready, so that it appeared that when Parliament opened in January, 1947, only Ontario and Quebec would be left.

Reconversion. By the closing quarter of the year Canada appeared to have passed beyond the stage of reconversion unemployment. In the preceding March, when demobilization was at its height, the unemployment index was also carried to its postwar peak. By November 1, however, unfilled vacancies had caught up with the number of applicants. Employment set a peacetime high in September, 1946.

The intervening months were stormy. With respect to strikes Canada had the worst summer in her history, leaving 1919 in second place with respect to the number of man-hours lost. The most disrupting strikes were in basic steel plants, aggravating the already acute shortage of steel and slowing the production of cars, farm machinery and houses. The strikes in three important steel plants lasted from July 15 to the first week in October. A maritime strike, beginning in late May, tied up ships for four weeks and strikes occurred in a number of other key industries.

Relaxation of Controls. In spite of the relaxation of some of the war controls, Canada took steps in 1946 to protect her price levels as far as possible from the influence of rising prices in the United States. The outstanding action was the announcement in the House of Commons on July 5 of the restoration of parity between the Canadian and the American dollar, together with the presentation of related measures for the safeguarding of Canadian prices.

Wage and salary controls were removed on November 30. A number of price increases were approved during the year and a number of subsidies removed. The increase in the cost-of-living index during the year was held to about 7 percent.

Agriculture. Canada is an important agricultural country, with an estimated value of field crops in 1946 of $1,238,000,000. Wheat, estimated at 418,000,000 bushels in November, 1946, is the leading crop. Other important products of the land are the remaining staple grains, animal products, lumber, and furs. The country is an important producer of water power.

Industry. Manufacturing increased rapidly in the war years and by 1944 mechanical transport and aircraft had become the leading war industries. Non-ferrous smelting and refining ($511,000,000), chemicals, meat products, shipbuilding, iron and steel products, automobiles, pulp and paper, and aircraft were in that order the leading groups of industries in 1943. Gold and copper, to the value of $113,000,000 and $65,000,000 respectively in 1944, are mined in considerable amounts.

Foreign Trade. In the ten months ended with October, 1946, total foreign trade ($3,437,000,000) was higher than for any comparable period before 1943. Exports amounted to $1,890,000,000 and imports to $1,547,000,000, producing an excess of exports of $343,000,000. A conspicuous factor in the trade of the year was the return to an unfavorable balance of trade with the United States. There was still a favorable balance of trade with countries other than the United States and exports to the West Indies and the countries of South America were on the increase. A sizeable proportion of Canada's exports to countries other than the United States was financed by export credits, while imports from the United States were paid for in cash, so that the deficit with the United States created a problem of careful financial management for the future.

Characteristics of the Population. Canada is a bilingual country, with 50 percent of its people of British origin and 30 percent of French origin at the time of the 1941 census. The French-speaking people live largely in the Province of Quebec, where they maintain cohesion of custom, religion, and language. The other leading national stocks are German, Ukrainian, and Dutch. Ninety percent of the people live within 250 miles of the Canadian-American border. Ontario (3,787,655) and Quebec (3,331,882) were the most populous provinces in 1941, and Montreal (903,007) and Toronto (667,457) the largest cities.

The chief religious affiliations in 1941 were Roman Catholic, United Church, Anglican and Presbyterian. The provinces have control of education, which is largely in the hands of state authorities, except in Quebec. There are six state-controlled and twelve independent universities in the Dominion.

ALZADA COMSTOCK.

CANADA, The United Church of. The designation applied to the single body formed by the union, in 1925, of the Congregational, Methodist, and Presbyterian churches in Canada; the Methodist churches of Newfoundland and Bermuda are also included. In the year of 1945 there were in Canada, Newfoundland, Bermuda, 6,784 preaching places (including home missions) in 2,710 pastoral charges; 749,374 communicant members; and 1,771,966 persons under pastoral care. A total amount of $16,021,138 was raised for all purposes. At the Twelfth General Council held in Montreal, Quebec, in September, 1946, the Rev. T. W. Jones, D.D., was chosen moderator for the ensuing biennium. Rev. Gordon A. Sisco, M.A., D.D., is general secretary. Headquarters: 521 Wesley Building, Toronto 2B, Ontario, Canada.

CANTON ISLAND. An atoll of the Phoenix group (3° to 5°S. and 170° to 175°W.) in the central Pacific which with Enderbury Island of the same group is under the joint control of Great Britain and the United States (Anglo–U.S.A. Pact of Aug. 10, 1938, and Notes of Apr. 6, 1939). Canton is 29 miles in circumference and has a land mass of from 50 to 600 yards wide which encloses a lagoon 9 miles in diameter. Enderbury is 2.5 miles long and 1 mile wide. Canton was a port of call on Pan American Airways' transpacific air service from Honolulu to Auckland, New Zealand, which commenced on July 12, 1940. Early in 1942 United States armed forces were stationed on the island,

which became an important link in the air transport route to the battle fronts of the southwestern Pacific and a base for air patrol operations.

CARNEGIE ENDOWMENTS. Carnegie Corporation of New York. Established by Andrew Carnegie in 1911 for the advancement and diffusion of knowledge and understanding among the people of the United States and the British Dominions and Colonies, this Corporation has a basic endowment of more than $135,000,000, of which $10,000,000 is applicable in the British Dominions and Colonies. Its income only is subject to appropriation by the Trustees.

During the year ended September 30, 1946, the Corporation appropriated $3,086,385 for other Carnegie agencies, for research, study, and publication, and for various purposes of colleges and universities. Of this amount, $212,500 was devoted to activities connected directly with the war effort, thus making a total of $2,984,367 granted for such purposes during 1940–46.

The Trustees of the Corporation are: Thomas S. Arbuthnot, W. Randolph Burgess, Vannevar Bush, Oliver C. Carmichael, William Frew, Henry James, Devereux C. Josephs, Nicholas Kelley, Russell Leffingwell, General George C. Marshall, Margaret Carnegie Miller, Frederick Osborn, Arthur W. Page, and Elihu Root, Jr.

The officers of administration are: Devereux C. Josephs, president; Robert M Lester, secretary; C. Herbert Lee, treasurer; and Ernest A. Farintosh, comptroller. Office: 522 Fifth Avenue, New York 18, New York.

Carnegie Endowment for International Peace. Founded by Andrew Carnegie in 1910, the endowment consists of a trust fund of $10,000,000, the revenue of which is to be administrated to hasten the abolition of international war. The work is carried on in three Divisions: (1) Division of Intercourse and Education; (2) Division of International Law; (3) Division of Economics and History

A special library containing 75,000 volumes on all aspects of public international relations is maintained in Washington. During the fiscal year ended June 30, 1946, the Endowment's income amounted to $555,475, which included a grant of $100,000 from the Carnegie Corporation of New York. During this period, the Endowment expended $550,-072, which included expenditures from balances brought forward from previous years. The officers are: President Emeritus: Nicholas Murray Butler; Acting President: John W. Davis; Secretary: George A. Finch; Treasurer: Eliot Wadsworth. Administrative offices and the Division of International Law are at 700 Jackson Place, Washington 6, D.C. The other Divisional offices are at 405 W. 117 St., New York 27, New York.

Carnegie Foundation for the Advancement of Teaching, The. A foundation established in 1905 by Andrew Carnegie, who gave an endowment of $10,-000,000 for paying retiring allowances and widows pensions in the United States, Canada, and Newfoundland and for various other purposes in the field of higher education. Incorporated by Act of Congress in 1906, the Foundation received a further gift of $5,000,000 from Mr. Carnegie and appropriations totaling $13,250,000 for endowment and reserves from Carnegie Corporation of New York. On June 30, 1946, its resources amounted to $16,272,269. In 1945–46, it disbursed $1,879,686 for allowances and pensions. It awards no scholarships or aids of any kind. The Foundation's Annual Reports and Bulletins deal with many phases of higher education. In 1946 its principal studies concerned the educational appraisal of individuals through new-type tests and testing, particularly at the graduate level. Oliver C. Cromwell is President of the Foundation, and Howard J. Savage Secretary and Treasurer, with offices at 522 Fifth Avenue, New York 18, New York.

Carnegie Hero Fund. A Fund established in 1904 by Andrew Carnegie to help those who have risked their lives to an extraordinary degree to save human life or to aid dependents of rescuers who have lost their lives in the performance of their acts. The original endowment was $5,000,000; the amount expended to September 30, 1946, $6,815,405. Dr. Thomas S. Arbuthnot is President and Mr. C. B. Ebersol is Assistant Secretary and Manager of the Fund, the address of which is 2307 Oliver Building, Pittsburgh 22, Pennsylvania.

Carnegie Institute, located in Schenley Park, Pittsburgh 13, Pennsylvania, founded and endowed by Andrew Carnegie in 1896, houses under one roof the central branch of the Carnegie Library of Pittsburgh, with special departments covering technology, art, and music; the Department of Fine Arts, with a representative and growing collection of modern painting and sculpture, and with the distinction of having the only annual international exhibition of paintings in the world; the Carnegie Museum, covering the natural sciences and applied arts; and the Carnegie Music Hall, where from October to July free organ recitals are given on Saturday evenings and Sunday afternoons. The Carnegie Institute building, a modification of the Italian Renaissance style, covers about four acres, and stands among the world's great works of architecture. Officers: President: William Frew. Vice President: Roy A. Hunt. Secretary: Augustus K. Oliver Treasurer: Thomas L. Orr.

Carnegie Institution of Washington. An organization founded in 1902 by Andrew Carnegie "to encourage in the broadest and most liberal manner investigation, research, and discovery, and the application of knowledge to the improvement of mankind." Income on investments for the year 1945 amounted approximately to $1,300,000.

Organization of the normal research program of the Institution remains much as described in YEAR BOOK for 1941. Due to the war emergency, however, the entire resources of the Institution including laboratory facilities and personnel have been made available to the U.S. Government, and most of the Institution's long-time projects have been temporarily deferred in lieu of war research contracts with the Government. The President of the Institution is the Director of the Government's Office of Scientific Research and Development. Now that the war is over the Institution expects to return to normal ways as soon as possible, preceded by discussion and formulation of future research programs.

Walter S. Gifford is Chairman of the Board of Trustees of the Institution, and Vannevar Bush is President. Other Trustees are: James F. Bell, Robert Woods Bliss, Lindsay Bradford, Frederic A. Delano, Homer L. Ferguson, W. Cameron Forbes, Herbert Hoover, Frank B. Jewett, Ernest O. Lawrence, Alfred L. Loomis, Roswell Miller, Henry S. Morgan, Seeley G. Mudd, Henning W. Prentis, Jr., Elihu Root, Jr., Henry R. Shepley, Richard P. Strong, Charles P. Taft, Juan T. Trippe, James W. Wadsworth, Frederic C. Walcott, and Lewis H. Weed. Headquarters: Sixteenth and P Streets, N.W., Washington 5, D.C.

CATHOLIC CHURCH IN THE UNITED STATES. Statistics. Membership in the Catholic Church in the United States in 1946 totalled 24,402,124, according to fig-

ures given by the *Official Catholic Directory*. A record total of 18,667 Catholic parishes are in operation, with 13,667 of them having resident pastors. There are, in addition, 5,124 chapels, and 5,084 mission churches.

There were 166 members of the American hierarchy presiding over 101 dioceses and 22 archdioceses. These also include for statistical purposes as American dioceses: The Vicariate-Apostolic of Alaska; Honolulu, Hawaii; the Abbatia Nullius of Belmont Abbey, N.C., as well as the Pittsburgh (Greek Rite) and the Ukrainian Greek Catholic Diocese.

The number of ordained clergymen—38,980—is the highest on record. There are 25,567 diocesan priests and 13,060 religious order priests. Among professed religious, the number of Sisters has increased to 139,218 and the number of Brothers to 6,721.

Elementary parish school pupils have increased by 41,190 to 2,070,202. Parish high school enrollments are 301,339, an increase of 22,720 over 1945. The number of seminarians has increased by 1,427 to 22,950.

A total of 87,430 converts entered the Church during the year. Infant baptisms numbered 792,987, and the total number of deaths as 256,433, a decrease of 8,314.

The total number of American youths under Catholic instruction was 3,451,735, an increase of 245,931. One hundred and ten new institutions bring the total of Catholic general hospitals to 794, with a total bed capacity of 86,919.

The number of patients treated annually in general hospitals totals 3,339,239, an increase of 48,418 over 1945 figures, and those treated in special hospitals and sanitoria, 58,687.

There are 45,219 children in 365 Catholic orphanages and infant asylums, and 19,308 children in foster homes.

Bishops' War Emergency and Relief Committee. The Bishops' War Emergency and Relief Committee was organized in 1940 as a centralized agency to meet war emergencies as well as relief needs of people suffering the devastation of war. A total of $2,500,000, raised in Catholic Churches throughout the United States, and distributed mainly through the Vatican on the basis of greatest need, continued to provide general relief to war victims, prisoners, refugees, and the homeless. Allotments were made to help relieve suffering and distressed victims of war, men, women, and children, from Poland, China, Belgium, France, Holland, the Scandinavian and Baltic countries, Greece, and a dozen other war-torn lands. Grants were also given toward the maintenance of Montezuma Seminary located near Las Vegas, New Mexico, where Mexican candidates for the priesthood are being educated. Aid was given to refugees here and abroad through the Catholic Refugee Committee in New York.

War Relief Services. War Relief Services—National Catholic Welfare Conference administers a program of relief and assistance to refugees, victims of war, prisoners of war, and merchant seamen in the United States and more than forty foreign countries. Records show that nine campaigns conducted by War Relief Services—N.C.W.C. from this date to May 1946 enabled the organization to administer over $70,000,000 worth of relief goods during this period. Efforts were redoubled during 1946, in response to a plea of Pope Pius XII that the entire Catholic world mobilize to save Europe's war-stricken, especially the young.

In May, again in response to a plea from the Vatican to combat famine in war-ravished lands without discrimination, a "Food For Children of Europe and the Far East" campaign was conducted in 15,000 Catholic parishes throughout the United States. This drive resulted in the collection of thirty million cans of food—ten million excess of the original goal. Over 8,900,000 pounds of this were shipped to twelve countries in Europe and the Far East during a six-week period ending in July, and one million and two hundred thousand pounds of canned foods were dispatched later to Poland, Greece, and Italy—countries where destitution was reported to be most widespread.

Relief channels to Germany were opened early in the year by authorization of President Truman, and War Relief Services arranged to supply one shipment a month, each consisting of 2,000 tons of food, clothing, and medical supplies for needy German civilians. Relief for Austria was also inaugurated with the shipment of 1,028,987 pounds of supplies. To aid India's starving millions, War Relief Services expedited the shipment of 1,000,000 pounds of flour.

Supplies in the amount of 3,900,000 pounds were reported en route to Germany in July 1946, and in the following month, War Relief Services announced the assignment of 250,000 pounds of whole wheat flour for the relief of people in North Africa. By October, more than 6,000,000 pounds of goods in all had been consigned to Germany, for distribution in the American, British and French zones.

A nation-wide campaign was launched in October 1946 for a minimum of $5,000,000 to carry on foreign relief work, as well as the allied activities of the Bishops' War Emergency and Relief Committee. A "Clothe the War Stricken" campaign was held during December in twenty-five dioceses in areas most readily accessible to New York and San Francisco warehouses of War Relief Services. During the fiscal year October 1945—September 30, 1946, relief shipments weighing 55,187,224 pounds and valued at $15,325,388 were made. At that time War Relief Services—N.C.W.C. had made 678 shipments to 36 countries—a total of 71,231,855 pounds, with a total value which amounted to $21,963.051.

Annual Meeting of the American Hierarchy. On November 13, 1946, 124 members of the Hierarchy in the United States assembled at the Catholic University in Washington, D.C., for their 1946 general meeting, and continued in session for three days. At the close of their meeting the Bishops issued a statement entitled "Man and the Peace," which was signed in their names by the Administrative Board of the National Catholic Welfare Conference.

The Catholic Press. The Catholic Press showed a total circulation of 10,654,918, a gain of 1,500,000 in three years. Special projects of Catholic news coverage included the consistories at Rome in February 1946, the work of special foreign correspondents, syndicated material, and the inauguration of more popular features. Seven new Catholic publications were launched during the year. Publications in 34 countries now subscribe to the NCWC News Service, while "Noticias Catolicas," the Spanish-language news service, serves over 60 papers in 18 countries.

Compilation of war records shows notable service on the part of Catholics, both in the armed forces, and in civilian industries in World War II. The first chaplain in the nation's history to receive the country's highest honor, Father Joseph T. O'Callaghan, S.J., of the Navy, received the Congressional Medal of Honor from President Harry S. Truman.

CENSUS, Bureau of the. A branch of the U.S. Department of Commerce which serves as the fact-finding agency of the Government. It conducts the decennial census of population, the quinquennial census of agriculture, foreign trade and vital statistics reports, data on local governments, etc. Director: James C. Capt.

CEYLON. A British self-governing colony, south of India. Area, 25,232 square miles. Population (1944 estimate), 6,384,000. Capital, Colombo (310,000 in 1936). Although a change of government was imminent, Ceylon was still administered in 1946 by a Governor assisted by a State Council of 61 members, 50 of whom were elected.

Population. More than one-half of Ceylon's population of approximately 6,384,000 are Sinhalese (3,500,000). Immigrant Tamils from southern India were estimated in 1944 at 642,540. There were also 325,000 Moors, 35,000 Dutch and Portuguese mixed with native strains, and 10,000 Europeans. Buddhism is the religion of the majority of the inhabitants. Education is free in Sinhalese and Tamil schools, but fees are paid for the English schools. In 1944 the enrollment was 768,134, of whom about two-fifths were girls. The University of Ceylon, established in 1942, has an associated medical college of long standing.

New Constitution. In conformity with the recommendations of the Commission on Constitutional Reform in Ceylon (the Soulbury Commission) the British Government issued a *White Paper* on October 31, 1945, offering a new constitution. This was accepted by the ministers of state, and on May 15, 1946, the King made an order in council embodying the new constitution. The plan provided that the State Council should be replaced by a Parliament consisting of a Governor, representing the King, and two chambers, a Senate and a House of Representatives. A Cabinet, one member of whom is to be Prime Minister, will be charged with the general direction and control of the island and will be collectively responsible to the Ceylon Parliament. Certain matters relating to defense, external affairs and serious racial or religious conflicts are reserved for decision by the British Government.

The announcement had a better reception in Ceylon than the discussion at the time of the visit of the Soulbury Commission to Ceylon had led observers to expect. The only serious signs of disaffection came from the indigenous Tamils of Indian origin and Indians resident in Ceylon. The president of the Indian Mercantile Chamber of Ceylon issued a statement saying that the arrangements sanctioned the discriminatory treatment already accorded by Ceylon to the Indian community. The Sinhalese majority welcomed the Constitution and hoped for dominion status within a short time, as the order in council suggested.

Economic Difficulties. Tea and rubber, the mainstays of the Ceylonese economy, caused some anxiety in 1946. In June some 86,000 Indian tea workers struck, under the direction of the Ceylon Indian Congress, against an alleged denial of civil rights to Indians. Under a new village expansion scheme the Ministry of Agriculture was buying tea estates and giving them to landless Ceylonese villagers on a cooperative plan. Indian laborers already on the first estate bought refused to leave, and Indians on private estates struck in sympathy. The strike appeared to be political, for it began on rubber estates but was transferred to tea where the crop could be more easily harmed by neglect.

The Ceylon Government was unwilling to renew for 1947 the agreement with the British Ministry of Food for the bulk purchase of tea. Sir Oliver Goonetilleke, Financial Secretary of Ceylon, told the State Council in November that "for the first time in history the Ceylon Board of Ministers stood up against imperialism and vested interests" in refusing the agreement. Ceylon intended to renew free auctions and to levy a heavy duty on all exports of tea.

The rising costs of labor in Ceylon, springing in part from a desire for a higher standard of living, hampered Ceylon's competitive position in rubber as well as in tea. Malayan rubber could be produced more cheaply and the threat of synthetic rubber was always in the background. Sir Oliver Goonetilleke argued in the State Council in November that Britain and the United States fixed rubber prices wholly without reference to the human element in production.

Production and Trade. Although tea (£20,715,379) and rubber (£14,852,763) were the chief exports in 1944, copra, coconut oil, and a number of other vegetable products were also important. The United Kingdom is Ceylon's chief tea market. Cotton manufactures, rice, sugar, coal, and coke were the large imports.

The island has about 3,650,000 acres of land under cultivation, with coconuts (1,238,000 acres), rice, rubber, and tea using a high proportion. In recent years the Department of Commerce and Industry has been active in establishing factories, in an attempt to process on the island many of Ceylon's products.

ALZADA COMSTOCK.

CHEMISTRY. The year 1946 will stand out in chemical circles as one in which great advances have been recorded. These unusually fruitful developments have resulted from a combination of circumstances. First, there has been a flood of information concerning the advances which have been made behind the curtain of war-time secrecy. Many of the products and processes about which there were only vague hints have been revealed in full and their adaptation to peace-time uses have been suggested. Second, the various Commissions which have been sent to Europe to study new developments have made preliminary reports and many of the processes and much of the equipment will be useful in American practice. A third influence of no small importance is the stimulation to research resulting from the experiences of the previous five years. Many concerns which formerly supported no research laboratory have come to realize that some organization of this kind is necessary if progress is to continue. A recent estimate has stated that the annual expenditure for chemical research in this country is now $500,000,000. As a result of these influences and the general stimulation to trade which has followed the war, there has been a bewildering deluge of new products and processes, as well as new developments in well established industries. One result of this increased activity is to stress the shortage of trained chemists. Mr. William S. Richardson, President of the B. F. Goodrich Chemical Company, estimates that "we have need on this continent for a minimum new crop of 10,000 men with degrees in chemistry per year." It is hoped that the increased enrollment in the colleges will, in time, supply this need.

Metals. The metals and their compounds have continued to be important. Nearly all of the metals have been removed from priority requirements, but some are still in short supply and probably will continue to be scarce for some time to come.

Magnesium and Aluminum. These light metals have been very plentiful. All the magnesium-producing plants were closed during the early part of the year. The Dow Chemical Company announced its intention of resuming production in the early fall, and reports from the Pacific Coast indicate that Permanente is determined to resume production of magnesium metal in spite of the cost of the process. Some improvements have been made with the purpose of decreasing the cost of production.

A new type of magnesium blasting powder is being developed and tested by the Permanente Metals Corp. It is claimed that the new explosive is insensitive to shock, is not ignited by a spark, and is not detonated by a flame. The magnesium dust in the blasting powder is obtained from Permanente's carbothermic process. It has been used successfully in the company's limestone quarry where it is claimed that it is more economical than the usual blasting powders.

The problem of obtaining aluminum from clay continues to attract attention of Western producers since bauxite is not available in this area, and excellent deposits of clay are at hand. It is thought that aluminum may be produced on the West Coast by extraction from clay. A number of plants have produced high grade alumina. One of the most promising methods uses ammonium bisulfate as the active agent. The process, however, involves several distinct steps, and its success seems still to be somewhat doubtful.

A new aluminum oxide abrasive has been announced by the Norton Company, Worcester, Mass. The process consists of the fusion of pure aluminum ores in an electric furnace in such a way that separate crystals of aluminum oxide in commercial sizes are formed in a fluid matrix. The crystals are removed from the matrix by a continuous chemical process; they do not require crushing, but after screening for size they are bonded as desired for use. On account of the purity of the crystals the bond is secure and the favorable angles give the wheels high efficiency in cutting and long life in use.

Tin. Tin continues to be scarce and although the outlook for relief is good, efforts are still being made to conserve the supply. The Chrysler Corporation has announced methods of saving tin which involve the use of tinless body-solder and reduction in the amount of tin in the other body parts of their cars. A device which has been popular with British manufacturers of radio and electrical equipment uses a coat consisting of 80% tin and 20% zinc for sheet metal. This coating is said to give excellent satisfaction. There is still much interest in the use of aluminum as a replacement for tin in food containers, cigarette packages, collapsible tubes, and wrapping foil. The American Can Company has announced the successful manufacture of aluminum cans for many food products, paints, and cleansers.

Lead. Lead continues to be one of the most difficult metals to obtain. For the last quarter of 1946 the allotment of lead was cut a little more than 8% under that of the third quarter. The shortage of lead is felt particularly in the manufacture of tetraethyl lead, insecticides, and lead storage batteries. Supplies of lead have been refused to newcomers in any lead-using industry.

Cobalt. Cobalt, ordinarily regarded as a metal of little interest, became critical early in the War because it was needed to make certain types of hard grinding tools. Nearly all the cobalt obtained in the United States was imported from the Belgian Congo and Northern Rhodesia. The supplies were cut off, and for a time the resulting critical shortage, together with the increased price of silver, brought to life the mining interests in Cobalt, Ontario, where much of this valuable metal is now obtained. It is used as a pigment, as a steel hardening alloy in electrical appliances, permanent magnets, internal combustion motors, and jet propulsion engines.

Cesium. Cesium vapor lamps were prepared by the Westinghouse Lamp Division for the United States Navy during the war. The lamps permitted a two-way telephonic conversation by an invisible light beam, and were particularly useful for convoy duty and in landing operations. The device permitted secret communications and was not subject to jamming by infrared beams or static, and was unaffected by weather conditions except dense fog or smoke.

Lithium. Lithium, whose developments during the war have been among the most closely guarded of our war secrets is now being released for peacetime uses. Much effort has been expended on the production of the metal itself. Research was carried out under the direction of the National Research Council in an effort to supply the Army Signal Corps with lithium for the production of lithium hydride. A detailed study was made with a view to producing the metal by the use of thermic reactions instead of by the electrolytic methods which formerly had been employed.

Three new methods have been developed for the production of lithium from the native ore spodumene. In one method a reaction mixture consisting of 65% lime, 5% ferrosilicon, and 30% spodumene was reduced directly in a vacuum furnace. The product obtained gave lithium, which, on redistillation was very pure, but the yield was low because of the small amount of lithium present in the charge.

The second method consisted in calcining a mixture of lime and spodumene, then leaching the product to obtain an impure lithium hydroxide solution. Lithium hydroxide was obtained by evaporation, and was then used in a mixture of 20% lithium hydroxide, 15% ferrosilicon, and 65% lime. This mixture was briquetted and reduction was obtained in a vacuum at 1100° C. When the product was distilled, a lithium of at least 90% purity was obtained.

The third method consists in treating the lithium hydroxide solution with sulfur dioxide followed by evaporation which gives solid lithium sulfite. This was then calcined with lime and reduced in a vacuum with ferrosilicon. Group figures were prepared at prices current when the research was carried out. They estimated the cost per pound of pure lithium by the direct reduction of spodumene to be $4.20, by the reduction of lithium hydroxide, $2.80, by the reduction of lithium oxide and calcium oxide, $2.50. These figures are based upon the cost of materials, overhead, and amortization for the production of one ton of lithium each twenty-four hours. Since the present market price of lithium is approximately $15 a pound, all of these prices are considerably below the present market price for this material. The first two methods have been investigated on the pilot plant scale and all of them are considered feasible.

At a recent meeting of the American Institute in New York City, Dr. Hans Osborg of the Lithaloy Corp. told of some of the interesting developments which have taken place during the war years. Lithium and its compounds are now in much demand in such processes as the heat treatment of steel, (see 1945 YEAR BOOK, pages 113, 355). In addi-

tion, lithium is now used in the electrical, chemical, glass, ceramic, and optical industries as well as in aircraft and airconditioning. Dr. Osborg makes the interesting suggestion that lithium may play an important part in the development of nuclear physics. Since it lies at the opposite extreme from uranium, lithium can be used in the synthesis of other elements. The reaction of lithium and hydrogen produces lithium hydride with the evolution of appreciable quantities of heat. Dr. Osborg predicts, "when lithium is bombarded by a proton or combined with hydrogen much energy could be produced—in the order of half a million kilowatt hours for 8 grams. Otherwise stated, it would give 38,800 billion b.t.u." Several new lithium products are now available for industrial use. Lithium peroxide is a stable solid which provides approximately 35% of free oxygen by weight. Lithium borohydride is a solid which is stable in dry air, but in contact with water it generates 66 cubic feet of hydrogen per pound. Lithium diborane is a gas at ordinary temperatures and in contact with water it liberates 78 cubic feet of hydrogen per pound.

Lithium aluminum hydride, $LiAlH_4$, is not yet available for general use but it is promised soon. It was first made by H. I. Schlesinger and A. E. Finholt at the University of Chicago. It is readily prepared from lithium hydride and aluminum chloride. It is a white crystalline powder which has remarkable reducing effect especially upon organic compounds. The reductions take place rapidly at room temperature and the yield is excellent. Aryl nitro compounds are reduced to the corresponding azo compounds; nitriles to amines; ketones, aldehydes, esters, anhydrides, and acid chlorides to corresponding alcohols. It does not appear to attack the carbon-to-carbon double bond so it will be of particular value in the reduction of unsaturated compounds. It is also expected to be of value in the preparation of compounds containing the radioactive isotope C^{14} for use in the applications of tracer elements. In inorganic chemistry lithium aluminum hydride may be used for the direct substitution of a hydrogen atom for a halogen atom, as for example in the preparation of alkyl silanes from alkyl silicon chlorides which are available in commercial quantities. This new reagent is expected to become a valuable chemical tool in many ways.

Lithium chloride, long valued in air conditioning units, has recently found a new application of importance. During the early days of the war, the armed services felt the need for a dry cell which could operate at the low temperatures encountered in cold climates and high altitudes. The ordinary Leclanché cell is distinctly inferior at temperatures as low as 0° F. and is entirely unsatisfactory at −10° F. By adding a solution of lithium chloride to the electrolyte in the dry cell they could be used at temperatures as low as −40° F. At these low temperatures, their efficiencies were from 10% to 20% of the 70° F. capacity, but they were obviously superior to the old form of dry cells.

Uranium. Uranium and its developments have attracted much attention. New deposits of uranium ore have been reported from a number of localities, notably that in Arkansas and in France. A new plutonium process has been reported from the Hanford Works at Richland, Washington. It increases the yield of plutonium and decreases the consumption of reagents used in the process. As a result of the combined research in this field radioactive isotopes have been available in experimental quantities. Of major value so far have been C^{14}, I^{131}, P^{32}, and S^{35}. The use of these as tracer elements has already begun to give promising results, especially in the field of Biochemistry. Phosphorus 32 has been used successfully in the treatment of two types of cancer. Superficial skin tumors are destroyed by exposure to a solution of this isotope. This isotope gives off cell-killing rays of low penetrating power which are safer to use than either x-rays or radium. Iodine 131 has half life of eight days. It is used in medicine in doses in the order of millicuries, thus making it possible for several million people to be treated with a single milligram of radioactive iodine. In like manner a milligram of carbon 14 is sufficient to "tag" a ton of organic material.

The production of four transuranium elements has been reported by Glenn T. Seaburg and his associates. These include neptunium, No 93, and plutonium, No 94, which have been prominent in the discussion of the atom bomb. In addition, elements No 95, americium, and No 96, curium, have been identified. Americium has an atomic weight 241, is represented by the symbol Am, emits alpha particles and has a half-life of 500 years. Curium, Cm, has two isotopes with weights 240 and 242, and half-life periods of one month and five months, respectively. The atomic structures of these elements shows that they are built up by increasing the number of electrons in the 5 F shell where americium has 6 electrons and curium has 7. This relates these new elements to the corresponding members of the rare earth group, a similarity which suggests the name "actinide" elements for the series beginning with actinium, No. 89, since they are closely analogous to the "lanthanide" elements of the rare earth group.

Metallurgy. Powder metallurgy of iron products should receive marked stimulation by the erection of an iron powder plant on the Mesabi range of northern Minnesota. The plant is to operate on a process developed by the late Charles V. Firth at the mines experiment station, University of Minnesota. Utilizing iron carbonate slate, an abundant waste product which overlies the iron ore of this region the plant will produce iron powder of high purity, at a stated capacity of five tons per day. The process is continuous and consists in removing the iron by acid, precipitation of iron sulfate, preferential roasting to iron oxide, and reduction under conditions which permit control of the physical properties of the product. It is claimed that uniformity and purity of the product can be guaranteed. Both these factors are important in the use of iron powder in powder metallurgy processes.

During the war a new transformer steel was needed for the improvement of radar equipment, in order to reduce the energy loss in the core and thereby to increase the range of radar and to give sharper definition of the image on the oscilloscope. The problem was solved by the production of a steel with less than 0.01% carbon and with 3–3.5% silicon. The engineers succeeded in rolling this new steel into sheets as thin as 0.003 inch and from these sheets coils were made which greatly increased the efficiency of the radar instruments. This new steel will have great influence in the development of such things as television high-frequency heating, sonic detection, and airborne electrical power systems, as well as devices needed in long-range navigation of planes, control of aircraft position by ground-based radar, the ground control of the approach of a plane in zero ceiling weather, anti-collision devices, and in many other peace-time uses.

Alloys. Alloys suitable for use in the most severe corrosive conditions have been necessary in war-

time activities. Two new alloys are being exploited for peace-time use: chlorimet 2 containing nickel 63%, molybdenum 32%, iron 3%, and chlorimet 3 containing nickel 60%, molybdenum 18%, chromium 18%, and iron 3%. They are claimed to be suitable for handling all concentrations of sulfuric acid, hydrochloric acid, moist chlorine, sodium chloride, acetic acid, bleach solutions, and many other corrosive chemicals. Both alloys are machinable and chlorimet 2 can be readily hardened by heat treatment. They are expecting to find their most important uses in pumps and valves.

Corrosion. Corrosion of the metals, especially iron, has been studied intensively during war years because of the necessity of shipping steel machines long distances into the tropical areas. Much progress has been made in preventing the corrosion of steel both in storage and in transit. Some objects have been protected from corrosion by thorough cleaning and dipping in wax and a hot bath of orthophosphates, ethylcellulose, or some similar material. The protection is effective for an indefinite period and the coating is easily removed when the machine is needed for use. Larger units like sewing machines are successfully protected against corrosion by sealing in waterproof, vaporproof, transparent bags.

At the close of the war, the Navy was confronted with an unusually difficult problem in rust-proofing some 2,200 vessels which it was desired to keep in stand-by condition. After thorough cleaning, metal parts were wrapped in a film of plastic, which was built up by the use of spray guns. It is expected that methods developed under the stress of wartime conditions will be very useful in marketing many commercial products.

Silicone. Silicone derivatives are continuing to show increased usefulness because of their varied and interesting properties. Silicone lubricants for high-vacuum stopcocks are successful in holding a pressure of less than 10^{-6}mm and can be maintained at a wide range of temperatures. It is claimed that there is no tendency for the stopcock to freeze. Successful use of silicone for insulation purposes permits the material to be cured at temperatures ranging from 300° F. to 500° F. Silicone paints are said to give superior service for finishes on automobiles, refrigerators, electric ranges, and hospital equipment. They are highly resistant to severe weather conditions, to acids and alkalies, and other troublesome chemicals as well as to heat. Silicone rubber is proving to be very resistant to heat and is particularly valuable for making gaskets and for electrical equipment of various sorts. Severe tests of silicone rubber which was aged for a year in a hot dry circulating oven did not appreciably change the surface hardness of the material, which also retained its flexibility and resilience for several months at 400° F. and for several days at 500° F. A new factory at Waterford, New York, is expected to reduce the costs of the silicone rubber.

A silicone compound, known commercially as D C Antifoam A, has been developed by the Dow-Corning Corp. for reducing the tendency to foam in aqueous solutions and emulsions. This material is said to be successful in eliminating or reducing foaming even when used in connection with steam or vacuum distillation. Only very low concentrations are needed, ranging from 1 part in 10,000 for badly foaming materials, to 1 part in a million for materials less likely to foam.

An extremely fine form of silicon dioxide is reported from Germany. Formed by the combustion of silicon tetrachloride, the product is useful as a substitute for carbon black in the production of rubber as well as for thickening corrosion preventives and lubricating greases designed for high temperature use. Rubber which is compounded with the new form of silicon is not as resistant to abrasion as rubber compounded with carbon black, but in other respects is said to be equal or superior to the usual rubber product.

Mica. Mica, one of the most critical shortages in the early periods of the war, has been successfully produced artificially in Germany. The process, recently reported by United States investigators, consists in heating silicon dioxide with a mixture of the oxides of aluminum, magnesium, iron, manganese, chromium, zinc, and vanadium, and the silicofluorides and fluorides of sodium and potassium. The mixture is heated in graphite crucibles, either by electric means or in a gas-fired furnace. In order to produce large sheets of mica, the cooling process must be carefully controlled, especially at the critical range 1,270° to 1,230° C. At right angles to the vertical axis of the crucible, a magnetic field of 13 gauss intensity may be used to induce crystallization.

Synthetic Sapphire. Synthetic sapphire, formerly imported from Europe, was badly needed during the war for the manufacture of watches and other precision instruments. A new industry has been developed since the war in the preparation of suitable synthetic sapphires. The product obtained has a combination of hardness and toughness which is superior to that of any other artificial material. The sapphires are used in the production of gauges, guides, and various other wear-resisting parts. Because sapphire is said to transmit ultraviolet ray better than any other material, it is used in the ultraviolet treatment of blood plasma and serums. The industry promises to flourish because of the numerous ways in which this product can be utilized.

Fluorine. Fluorine, a long neglected element, has attracted much attention within recent months. At the September meeting of the American Chemical Society in Chicago, there were some 52 papers presented on various phases of fluorine chemistry. The supply of the native ore of this element has been increased by the application at the United States Bureau of Mines of a flotation process for the production of high grade fluorite. The element itself is now produced by several methods and it is available in commercial quantities. The use of Freon in refrigeration units has been popular for some time. More recent developments include the application of anhydrous hydrogen fluoride in the preparation of aviation gasoline and the use of boron trifluoride in the petroleum industry. Many fluorocarbons have been prepared and their properties studied. The use of some of these compounds as coolants has attracted a good deal of interest. Particular interest centers around polyperfluorovinyl chloride which has advantages as a lubricant. A hydrogen fluoride torch has been developed at Columbia University. It produces a temperature of over 6,000° F.

Chlorine. Chlorine has always been an essential material in modern chemical industries, especially in modern warfare. As a result, much attention has been paid within recent years to the increased production of chlorine. Greatest interest in this direction attaches to the reports which have been brought back from Germany concerning the use of mercury cathodes in several types of chlorine cells. These have been studied by American electrochemists with a view to their adaptation to American industry. It is reported that the German cells have

a current efficiency of 94% to 95% and are believed to have the largest chlorine capacity of any cell now in use. An interesting report from General MacArthur's staff at Tokyo indicates that the Japanese chemists have used mercury-type chlorine cells for some time. Half of the cells used in the Japanese chlorine industry had been converted from the diaphragm type to the mercury cell. Two general types of cells were used in Japan, but they were similar in performance characteristics, such as current, voltage, and power efficiency. Both types of cells were constructed with glass or porcelain lining.

Chlorates and perchlorates are now being manufactured on the West Coast at a rate which is said to be 100 times greater than the original pre-war installation. The demand for these materials has increased tremendously during the war years.

Seawater. Desalting seawater has been reported during the war years, but little information has been available as to the methods by which this practical problem was solved. Recently, complete details have been published from the laboratories of the Permutit Company, New York. Under the process, which was most successful during the war, chlorides were removed from seawater by allowing a small bag of water to remain in contact with silver zeolite which was reinforced by a small amount of silver oxide. If it was desired to remove sulfates, barium hydrate was used for this purpose. The softening agents were compressed in briquet form along with a small amount of powdered activated charcoal. The desalting kit supplied to aviators and others included a vinylite-resin desalting bag. After the water had stood in the bag in contact with the softening agents for an hour or so, clear water was obtained by sucking through a filter in the bottom of the bag.

Explosives. Explosives naturally demanded much attention during the war. The one which has been characterized as the world's most powerful chemical explosive is known as RDX or cyclonite. It is manufactured by the nitration of hexamethylenetetramine. It is said to have 50% more power than T.N.T. and was used in the super block busters in the European operations. A peace-time use for the explosive was found in the manufacture of the smallest blasting caps ever developed. They are made of aluminum and are safer to handle than ordinary blasting caps. The stock of hexamethylenetetramine which remains is being utilized in the manufacture of plastics and medicines.

Alkalis. Soda ash and other alkaline materials including sodium hydroxide, sodium silicate, and sodium phosphate have been in short supply, especially during the latter part of 1946. Late in the year it was stated that the production of soda ash was about 15% below the requirements of the essential users. Therefore, steps were taken to limit new users and to produce increases where possible. The shortage of soda ash seriously affected the aluminum industry, which was attempting to meet the intense demand for material to carry out the housing program. Plans have been made to increase the capacity of the soda ash plants at Baton Rouge, La., Detroit, and Wyandotte, Michigan. But these increases cannot be expected immediately.

Hydrogen Peroxide. Hydrogen peroxide continues to attract favorable attention following the successful production of concentrated product both in Germany and in the United States (see 1946 YEAR BOOK, Page 107). During the current year reports from Italy describe a method of using 39% hydrogen peroxide for the sterilization of milk under circumstances which make pasteurization difficult. For this work hydrogen peroxide was prepared by the familiar method of electrolytic oxidation of ammonium sulfate in sulfuric acid solution. The method of sterilizing milk is simple, efficient, and leaves no taste or harmful byproducts.

Petroleum. Petroleum has been one of the most essential materials during the war years. The petroleum industry's monumental contribution to the war effort has been called the best civilian job of the critical war period. Much of the change has been in the fields of catalytic cracking, alkylation, superfractionation, and the production of essential chemical materials in large volume. These production records have been called by Bruce K. Brown, Vice-President of the Standard Oil Company, "the largest single task in organic chemical synthesis which has yet been undertaken." The fuel product obtained was a skillfully prepared blend of which 30% consists of the synthetic hydrocarbons of the iso-octane family. The aviation gasoline produced during the war was known as grade 100–130. In the summer of 1945 the industry began the production of a super-fuel which was known as 115–145. These numbers are an extension of the original octane rating system, and they indicate the superiority of the new fuel. In the latest types of engines, this gasoline permitted a faster take-off and a longer cruising range than had ever been possible before.

Another important contribution was the production of butadiene for the manufacture of rubber. There has been keen rivalry between alcohol and petroleum as a raw material for the large scale production of butadiene.

Another material supplied in large volume was toluene which was used for producing fog as a protection against air raids and as a raw material in the manufacture of T.N.T. Toluene was produced from petroleum materials by distillation and catalytic dehydrogenation of methyl cyclohexane

The petroleum industry also was called upon to produce large quantities of jell gasoline which was most effective in incendiary bombs and as fuel for the deadly flame throwers.

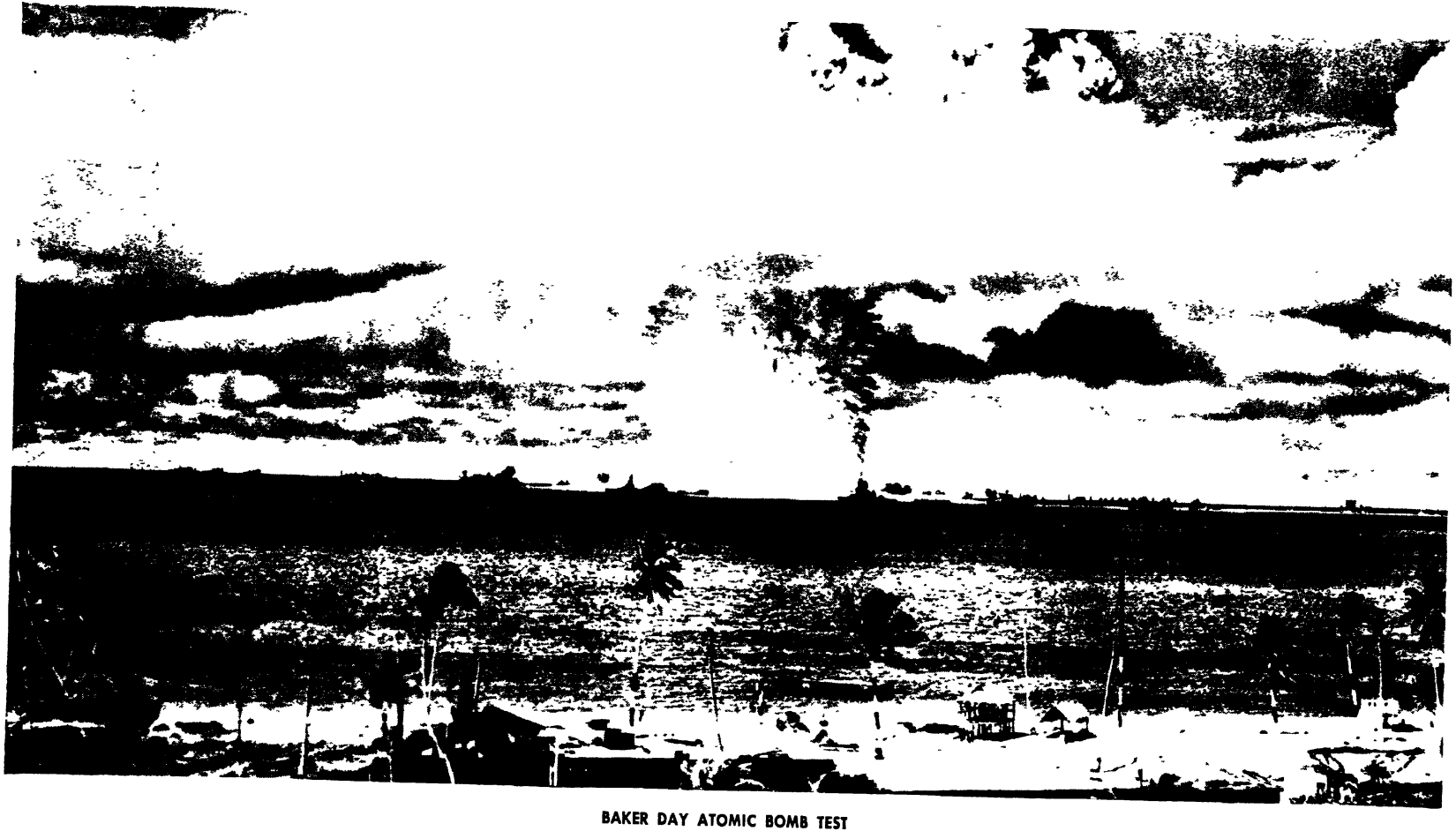
The drain upon our natural petroleum resources has been great during this intensive war effort. At the peak of production in July, 1945, the United Nations, excluding the U.S.S.R., reached a total production only a little less than 600,000 barrels per day. This amount was ten times the prewar capacity. The refineries in the United States produced over 87% of this total. Such an enormous drain upon one of our most important natural resources leads us to wonder how long the industry can continue on the present basis. Fears have been expressed frequently that the nation is wasting its precious raw materials and will soon face a genuine famine in petroleum and its products. Reasonable conservation is obviously essential, but some petroleum experts have called attention to the possibility of obtaining liquid petroleum products by synthesis from natural gas or from gas producible from coal. Pioneer plants have already been planned and may be expected to go into production within a few years.

Bombs. Incendiary bombs have been described by Dr. Ralph W. Hufferd who served as Lieutenant Colonel of Chemical Warfare Service. Various types of bombs were used. They were usually small and carried in clusters of about forty. One B-29 was able to carry as many as 4,400 bombs. Early in the war a thermite mixture was used, but later petroleum products were substituted for the incendiary material. One of the most successful thick-

Joint Army-Navy Task Force One

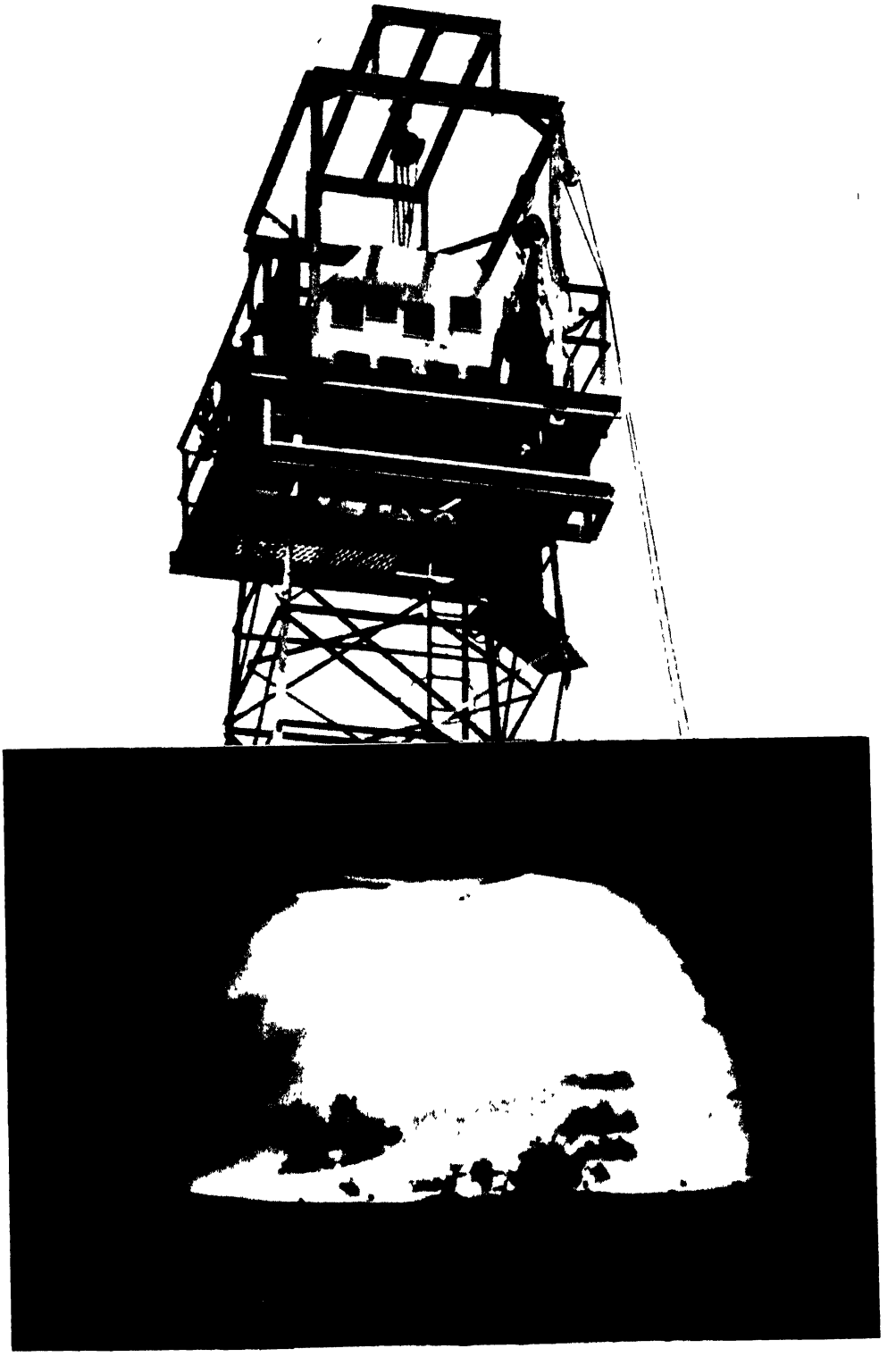
UNDERWATER PHOTOGRAPHER AT BIKINI

Carrying camera and lights this photographer is being lowered on trapeze for photography under the surface of Bikini Lagoon. This remarkable picture was made at a depth of 30 feet with exposure of 1/15 second at f/55.6 using natural light.



BAKER DAY ATOMIC BOMB TEST

Bikini Underwater Atomic Bomb Test (Baker Day) showing the water column at its peak, about 5,000 feet high. Photograph was taken with K18 aerial camera (*Joint Army-Navy Task Force One*).

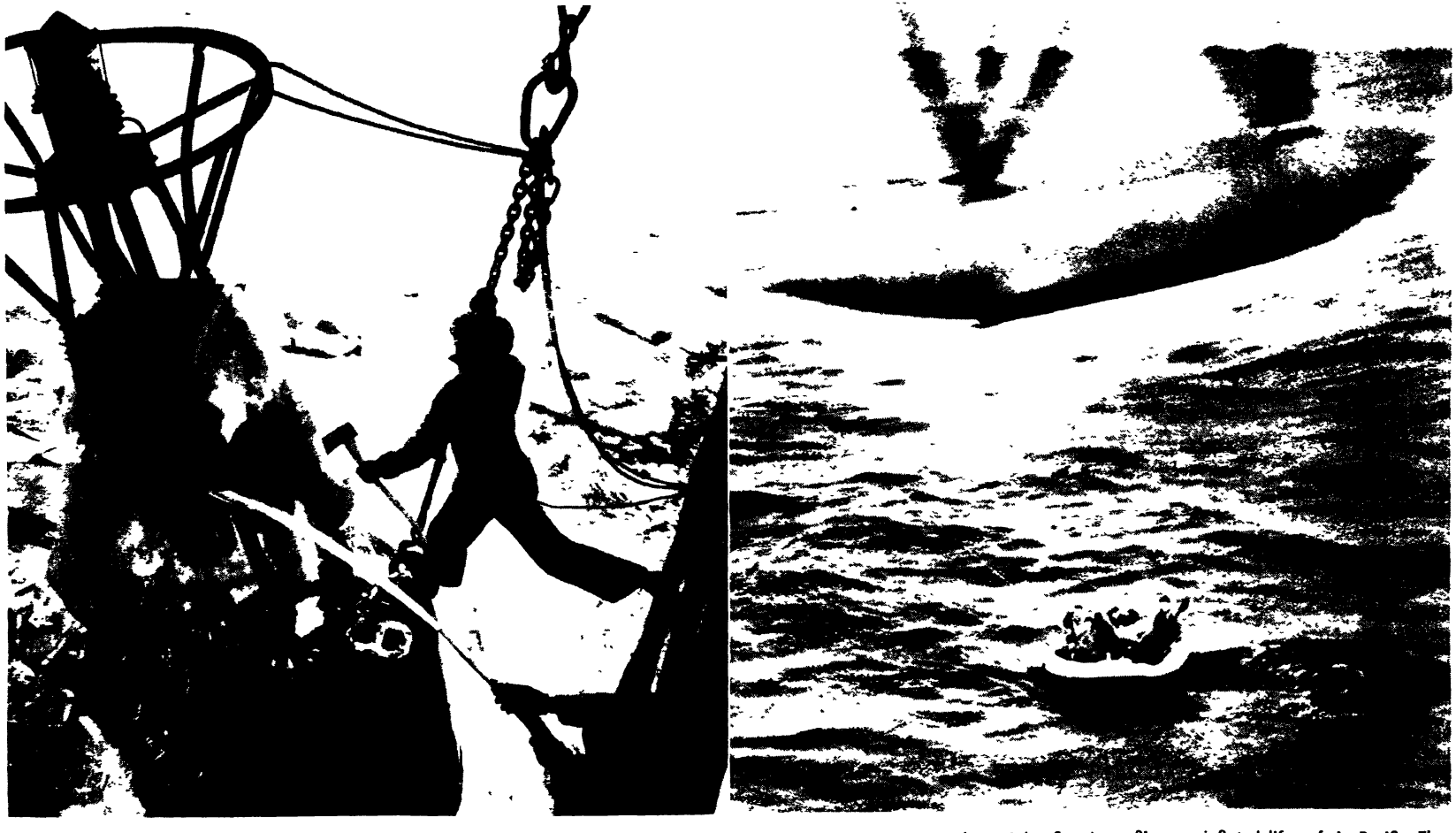


THE BIKINI TESTS

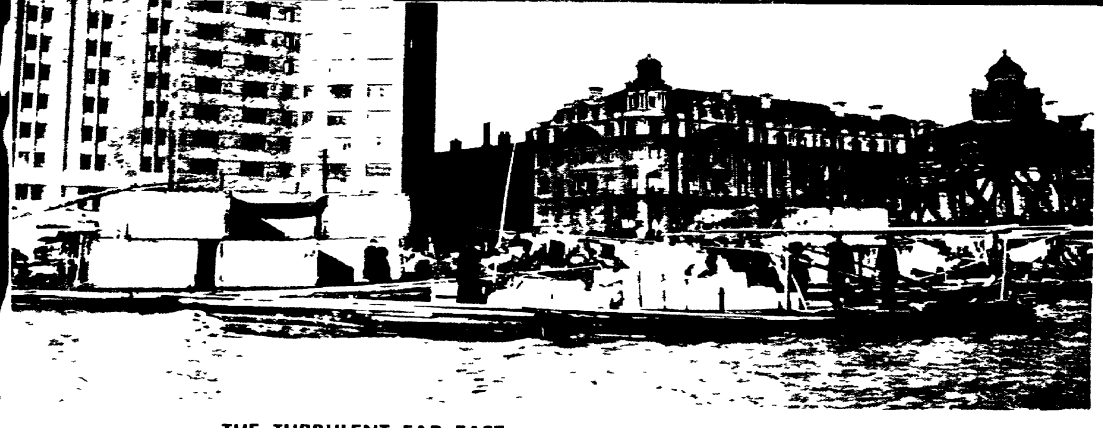
Above The protective housing on Bikini Atoll that shielded the cameras from the elements and radiation (*U S Army-Navy Joint Task Force One*) *Below*· The exploding atomic bomb throws a halo a thousand times brighter than the sun around the target fleet (*U.S Navy*).

CENTRAL EUROPE AFTER THE WAR

Above Bulgarians, building a new dam, use a truck bearing the slogan "We Built for the Republic" *Below* Marshal Koniev, the Soviet Commander in Austria, jokes over dinner with Austria's President Dr Karl Renner in Vienna. (*Photos by European*)

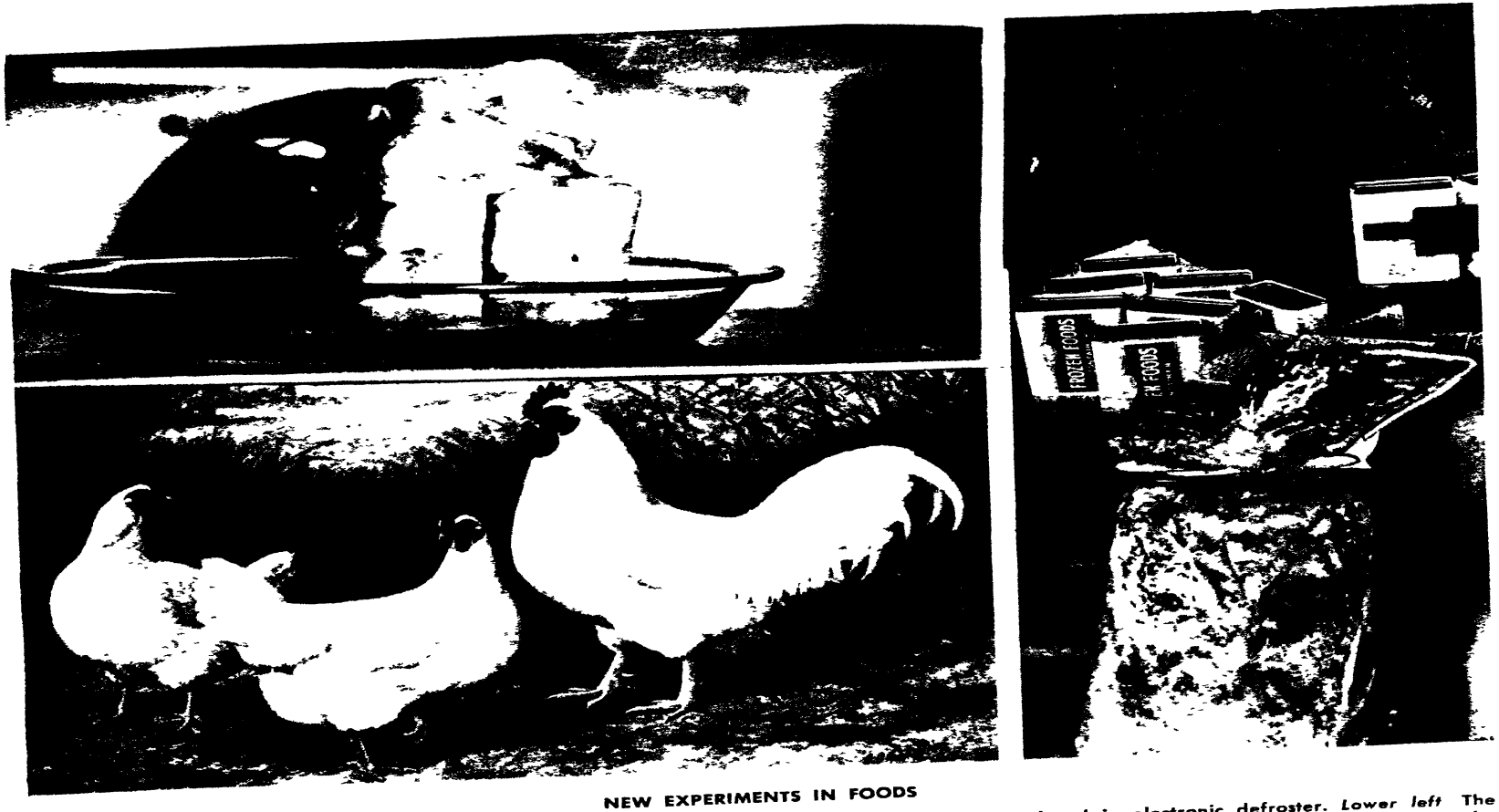


Left A Coast Guardsman smashes ice that encrusts buoy in navigation channel *Right* Coast Guard's *Martin Mariner* seaplane sights five Army fliers on inflated life raft in Pacific The Coast Guard Air-Sea Rescue plane, Commander Donald B Macdiarmid in charge, searched 800 miles from Coast Guard Air Station, San Diego, California. (*Photos by U S. Coast Guard*)



THE TURBULENT FAR EAST

Above· The unsuccessful mediation team in China's civil war, (left to right) General Chang Chun of the Central Government, General George C. Marshall of the United States, and General Chou En-lai of the Communist Party (*International News Photo*) *Left* Ho Chi Minh, President of the Viet Nam, who is leading the fight against the French in Indo-China (*European*) *Below* UNRRA supplies on a wharf in Shanghai's harbor (*Official U S. Navy Photo*).



NEW EXPERIMENTS IN FOODS

Upper left· A three-pound block of peaches gives way to individual slices six seconds after being placed in electronic defroster. *Lower left* The Chicken-of-Tomorrow, depicted in oil painting by Arthur O. Schilling for nation-wide contest with $5,000 prize offered by A & P Food Stores to the breeder who develops a chicken of superior type for meat *Upper right*· An improved container for frozen foods results from new shape. *Lower right* Centuries-old problem of bread mold is solved by "broadcasting" high-frequency electronic currents through wrapped bread after baking.

NOTABLE FRENCH POLITICAL FIGURES

Above: Léon Blum, Socialist, who served briefly as Premier late in 1946 *Lower left·* Vincent Auriol, Socialist, elected temporary President of the Assembly in December (subsequently, in January 1947, being elected President of the Republic) *Lower right.* Maurice Thorez, Communist, named Vice Premier in the Bidault Government. (*Photos by French Press and Information Service*)

ening agents used was known as "napalm." This was a peculiar aluminum soap which could be dispersed in gasoline. This material proved very useful in making incendiary bombs, and it was also extensively used as the fiery material in flame throwers and expendible gasoline tanks. Fine grain magnesium was distributed through the napalm gels and white phosphorus was added to insure ignition and reignition after being extinguished. In order to insure the most destructive use of these materials, sample villages, using the German and Japanese type of construction were built upon the desert area of Utah. The dropping of expendible tanks became quite a common practice and is credited with having protected landing troops effectively, especially at Tinian. The results of incendiary warfare were successful as is shown by the statement that "before the first atom bomb was dropped on Japan, approximately 160 square miles of the area of the leading cities had been destroyed by fire raids." The remaining stock of napalm has been transformed into soap which is useful in the Army hospitals and camps. It is somewhat germicidal in its action.

Helium has been used as a tracer gas by engineers of the United States Bureau of Mines and representatives of the petroleum industry. The purpose of the work is to determine the length of time required for helium to travel from one well to others in the neighborhood. About 100 cubic feet of natural gas are injected into the well for a week with pure helium which was added at intervals so as to produce waves of helium laden gas. Analysis of the gas in adjacent wells determines the length of time required for the helium to travel between the two wells. This permits an estimate to be made of the nature of the underground reservoir which is being flushed by the injected gas. Successful tests of this method have been carried out in the Elk Hills Field of the Naval Petroleum Reserve in Kern County, California. Other tests are being carried out in Texas.

Alcohol. Alcohol continues to be one of the problems of the manufacturing chemist in spite of the fact that the decrease in the wartime demand for butadiene has relieved the pressure materially. On June 27, 1946, it was announced that nine industrial alcohol plants had been closed because of a lack of molasses Because of this continued critical situation, there has been sustained interest in the production of alcohol from other sources than grain or molasses. The plant at Bellingham, Washington, is said to be the only one in the United States which is producing alcohol from sulfite waste liquors. This plant has been in operation since 1945 and is producing about 6,500 gallons of industrial alcohol daily Twenty-two gallons of alcohol are produced from a ton of wood pulp. Fusel oil is another product of the process. The plant at Springfield, Oregon, is designed to obtain alcohol from wood waste and is at last ready for operation after a series of delays. The raw material to be used will be sawdust and other wood waste. Some 220 tons of dried waste will be used daily which, it is estimated, will produce about 1,150 gallons of 190 proof alcohol. In addition, there will be valuable by-products. The plant uses a modified Scholler process which hydrolyzes the wood by means of sulfuric acid under pressure of 50 to 150 pounds per square inch. The resulting sugar is fermented at 86° F. The process is still expensive although under present market conditions, it is able to compete with grain alcohol. If the utilization of by-products can be developed, it may be able to continue production under ordinary market conditions. The completion in 1946 of the United States Department of Agriculture's semi-commercial plant at Peoria, Illinois, gives promise of successful production of alcohol from corncobs and other cellulosic farm wastes. It is expected to produce 90–95 gallons of liquid motor fuel from a ton of farm waste, the material being digested with sulfuric acid and the resulting sugar subjected to fermentation. The ultimate aim in the production of motor fuel is not to displace gasoline but to make an inexpensive blending material which can be used in internal combustion engines. In addition, the Peoria plant is expected to produce from farm wastes in an eight-hour day 2,000 pounds of glucose in a 10% solution, 1,600 pounds of xylose in a 15% solution, 200 pounds of furfural, and 1,000 pounds of lignin. An important question concerning this process is the cost of operation.

There is keen interest also in a new plant at Eagle Grove, Iowa, designed to produce alcohol by the use of mold instead of malt. As a result of experimental work begun nearly ten years ago in the Iowa State College, it was concluded that mold has a slight advantage over malt and can produce alcohol at a somewhat lower cost. It is believed that the development of this process will result in appreciable saving in the alcohol industries.

Glycerin. Glycerin is normally produced in the manufacture of soap, from which 85% of our usual supply of glycerin is obtained. Because of the shortage of fats and oils, soap manufacturers have not been able to supply the increased demand for glycerin. As a result, attention has been directed to synthetic methods of producing glycerin. One possible method is to prepare glycerin from propylene, an abundant product from the petroleum industry. The cost of the process is high, but further research and quantity production may reduce it. A plant using this method is under consideration, but has not yet been built It is not expected that synthetic glycerin can replace the by-product from soap, but it should be able to supply any deficiency which may arise. Future demands for glycerin look promising, especially in the manufacture of alkyd resins, as a moistening agent in the manufacture of tobacco, in making dynamite, nitroglycerin, cosmetics, dentrifices, toilet articles, pharmaceuticals, adhesives, candies, beverages, and in many other applications.

Methionine. Methionine is one of the ten amino acids which are considered essential for growth and repair of animal tissue. The best natural sources are dairy products, fish, and liver. The medicinal form has been very expensive. A new process for the synthesis of this compound has recently been announced by the United States Industrial Chemicals and is expected to cut its cost about 97%. It will then be available for much wider use including treatment of burns, shock, exposure, serious wounds, and for all types of poisons in which the liver is involved, such as carbon tetrachloride, T.N.T., arsenic, phosphorus, and chloroform. Two French investigators have recently reported that the injection of methionine or its administration by mouth has caused a rapid increase in the red blood cells in rats which had been made anemic by carbon tetrachloride or by a diet deficient in methionine.

Fabrics. Mildewproofing of fabrics is claimed for chemical treatment described by the B. F. Goodrich and the Treesdale Laboratories of Pittsburgh. The material is known commercially as Permaproof. It is claimed to render all fabrics mildewproof, waterproof, and flameproof. It does not weaken the fabric or destroy bright colors. It may

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be applied by dip, spray, or paint to awnings, tents, draperies, slip covers, upholstery, and rugs. Rohm and Haas, Philadelphia, also have a new mildew-proofing agent which is known as Hyamine 3258. It is quaternary ammonium pentaphenate, so it combines the antifungal properties of both the quartenary ammonium salts and the chlorophenates. A 10% water solution of the Hyamine 3258 with a little isopropinol and a wetting agent like Triton X-155 is effective in arresting fungus growths on cellar and closet walls. Tests have shown it to be particularly useful in preventing fungus growths on leather. It is being tested also for use in the protection of storage bins and containers for foods and in many other places about the home and farm. It had extensive war-time use for protecting army equipment against destructive fungi of the tropics.

Hartex Duofol L is a new and effective wetting agent which is recommended in dyeing operations and sanforizing. It is a sulfated ester which mixes with water in all proportions and is not affected by hard water, salt, alkali, all weak acids or elevated temperatures It gives a uniformity of shade and acts as a softening agent. It is effective at concentrations as low as one ounce per two hundred gallons of solution.

Synthetics. Hydroquinone, the popular photographic developing medium, is now produced synthetically by a method developed in Germany and reported by United States commissioners. The process starts with aniline sulfate, which is transformed by various steps to hydroquinone. This is then purified by vacuum distillation, solution, and crystallization.

The shortage of sugar has insured a continued and intensified interest in compounds with a sweet taste. Consequently, unusual interest has attached to the reports made before various groups of American Chemists by Professor Pieter Edward Verkade of the Delft Technische Hoogeschool. During the war many compounds were studied with regard to their sweetening power. The sweetest compound reported is 1-n-propoxy-2-amino-4-nitrobenzene which is more than 4,000 times sweeter than a 1% solution of sucrose and about 8 times as sweet as saccharine. This compound was prepared by Professor Verkade who obtained it as pure orange crystals. It is stable in boiling water and weak acids. It possesses no secondary or after-taste and has been shown to be harmless when taken with the food. When used as a sweetening agent, it is recommended that it be diluted with some substance like lactose which permits the preparation of a mixture which is about 500 times sweeter than cane sugar. The new sweetening agent is being manufactured in Holland and used in several European countries. It is to be introduced into the United States.

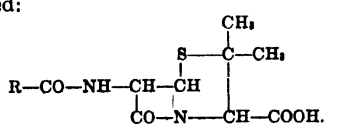
Drugs. A member of the Vitamin B complex, p-Aminobenzoic acid, basis for the production of local anesthetics such as novocaine, has shown its ability as a drug in the treatment of fevers transmitted by ticks and other related insects. These include forms of typhus fever and Rocky Mountain spotted fever which are caused by the presence of small bacteria-like bodies found in lice and ticks and in the blood and tissues of patients suffering from typhus and other similar diseases. These organisms are known as Rickettsia. These rickettsial diseases are all dangerous, acute, infectious, and resist the attack of such remedies as the sulfa drugs and penicillin. They are spread by rats, mites, lice, and fleas. Laboratory tests with para-aminobenzoic acid, the name of which has been abbreviated to "paba," show that it inhibits the growth of rickettsiae. Field tests in Egypt and India have shown that patients suffering from typhus are relieved to some extent by the use of paba. Guinea pigs inoculated with spotted fever were protected by paba.

Vitamin B_6, pyridoxine hydrochloride, is to be manufactured by Merck and Company at Elkton, Virginia. The plant which is being built will cost in the neighborhood of $1,500,000.

Penicillin has received intense study during the year 1946. The production has increased phenomenally. It is estimated that in April, 1946, the production was 300% above that of December, 1945. The estimated amount available in April was more than two million billion units, of which nearly 60% was allocated for civilian use and more than 30% for export. The manufacture of penicillin in England has kept pace with that in this country. It is reported that in May of this year, England would be able to begin the export of penicillin. The production had reached a point where a price war upon the sale of penicillin was in evidence.

The efficiency of the mold in producing penicillin has been increased surprisingly since the first British workers secured two units of the remedy from each milliliter of broth in which the mold is cultured. At the Northern Regional Laboratory in Peoria, Illinois, the yield was increased to 169 units by improving the medium in which the mold was grown. At the Carnegie Institution in Cold Spring Harbor, N.Y. the yield was further increased to an average of 369 units by treating the spores of the mold with x-rays. Some recent work at the University of Wisconsin, in which spores of the mold have been exposed to ultraviolet light, has produced strains of mold which have given as high as 904 units per milliliter. It is believed that even this high degree of productivity may be exceeded as the result of further work.

It is now recognized that the penicillin as originally prepared by broth culture was a mixture of several compounds of similar structure. As a result of the study of the structure of penicillin, at least seven different types of penicillin are now recognized, four of which are important. These four are known, respectively, as Penicillin F, G, K, and X. They all have a similar structure and differ from each other by the nature of a side chain. The general formula for all these types of penicillin may be represented:



When "R" in the above formula is represented by $CH_3CH_2CH{=}{=}CH{-}{-}CH_2$ we have the formula for penicillin F. For penicillin G, the side chain is $C_6H_5CH_2$; for penicillin X, R is replaced by $HOC_6H_4CH_2$. Penicillin K has the side chain $CH_3(CH_2)_6$.

The potency of each of these forms of penicillin upon various disease germs has not yet been determined definitely, but work is continuing along these lines. One of the difficulties in the use of penicillin is the rapidity with which the drug is excreted from the body. Penicillin K is also rapidly destroyed in the body. Physicians are looking eagerly for the time when they will be able to prescribe specific forms of penicillin for any given disease.

The administration of penicillin has received considerable attention. One of the most effective methods approved for delaying the absorption and excretion of penicillin is by intramuscular or sub-

cutaneous injection of the compound suspended in sterile peanut oil and beeswax. The slow absorption of penicillin may be accomplished by administering the drug in an oil-water emulsion using as a vehicle a lanolin-like substance known commercially as "solvecillin.""

The most spectacular development during the year in the chemistry of penicillin was the announcement in November, 1946, of the successful synthesis of penicillin G. This announcement was made by Dr. Vincent duVigneaud and his associates at the Cornell University Medical College, New York City, who were reporting the results of the study of a large group of investigators from many institutions, both in this country and in England. Dr. duVigneaud and his co-workers have succeeded in preparing and isolating a small quantity of material which they proved to be penicillin G. The mechanism of the reaction is still obscure, but the product was proven to be analogous to the penicillin produced by broth culture, both by its decomposition products and its clinical activity. The use of radioactive sulfur as a tracer element has also been employed for the confirmatory identification of the product. The immediate result of this outstanding contribution will probably not mean a cheaper production of penicillin or a product of greater uniformity although these results may follow at a later time. The first result undoubtedly will be the preparation of other forms of penicillin which it is hoped may have the ability to control certain forms of infection that are now thought to be immune to penicillin treatment. Perhaps a penicillin will be made which behaves more effectively in the human body than the penicillin which we now know.

Streptomycin has also received close attention during 1946 (see 1946 YEAR BOOK, p. 105). It was discovered in 1944 and has advanced to large scale commercial production with amazing rapidity. It is not a rival of penicillin but is a supplement to it in the fight against disease. Penicillin is primarily effective against gram-positive bacteria, while streptomycin is useful in the control of infections of gram-negative bacteria.

The manufacture of streptomycin is by a fermentation process which is very similar to that used in the production of penicillin. A nutrient medium is innoculate with *Streptomyces griseus*. The final product after fermentation contains 0.005% of streptomycin which is removed by filtration, absorption in carbon, washing, evaporation, precipitation, and drying. The product is then very carefully purified for the removal of any toxic compounds which may be present. The final handling consists of high vacuum sublimation, weighing into vials and packaging. The entire process is conducted under the most strict sterile conditions. The main production of streptomycin comes from Merck's $3,500,000 plant at Elkton, Va. and Rahway, N.J., which is just being completed. Production in this plant began in May, 1946. In September, more than 100,000 grams per month were being produced and by November, it was expected the production would be twice this amount.

A study of the structure of streptomycin is now actively progressing. Some of the decomposition products of streptomycin have been identified but complete knowledge of the structure has not yet been worked out. The condensed formula for streptomycin is given as $C_{21}H_{39}N_7O_{12}$. During September certain hospitals were designated as distributing points for the use of streptomycin, but later in the year all hospitals were allowed to buy the drug directly, and some streptomycin was available for scientific research, both in this country and abroad. The administration of streptomycin is similar to that for penicillin. Streptomycin, suspended in peanut oil and beeswax, is not absorbed so readily as is penicillin. The drug has been found useful in the treatment of many diseases such as peritonitis, liver abscesses, bile duct infection, wounds, tuberculosis, certain types of inflammation of the heart valves, and pneumonia. Particular interest attaches to its use in connection with the treatment of tuberculosis. It is not a cure for this malady, but it gives considerable protection against it, and has helped more than any remedy previously tried. The disease returns when the streptomycin treatment is withdrawn. It is hoped that further study will reveal a remedy related to streptomycin which may be useful in checking the ravages of tuberculosis. Studies at the Squibb Institute, New Brunswick, N.J. have shown that streptomycin is not as efficient as penicillin in the treatment of syphilis. These studies have led to the conclusion that penicillin G is more than 3,000 times as effective as streptomycin in the treatment of syphilis.

Leprosy, caused by a germ which is similar to the one which produces tuberculosis, has long been considered incurable, but it seems to be yielding to some of the modern drugs. Chalmoogra oil has been given up but streptomycin looks promising and three of the sulfa drugs (promin, diasone, promizole) have been successful in actually curing cases of leprosy. In the leper colony at Carville, La. 37 patients were discharged as cured in 1945 and there will be about 40 cures in 1946. Recovery is slow and daily treatments are needed but "even the most hopeless cases" may be suppressed in five years or less.

Metopryl is the trade name given to the new anesthetic which is n-propyl-methyl ether. It is reported that it gives great muscular relaxation and longer effect together with less irritation and less disagreeable after-effects than the anesthetics in common use.

High blood pressure is effectively reduced by a new drug being developed by Frederick Sterns and Company of Detroit, Michigan. The compound is designated as O-4, 277. Chemically it is 1-(p-hydroxyphenyl-1)-2-isopropylamino-ethanol. It may be administered orally, intravenously, or intramuscularly. The drug is more effective in lowering high blood pressure than the nitrites which are commonly used, and the effect lasts from one to four hours. It is believed that the result is produced by the stimulation of the vaso-depressor mechanism. If this explanation is confirmed, the later use of this new compound will be successful in furnishing relief for many ailments which are caused by high blood pressure.

Ergosterol has been isolated and identified in the sterol fraction from a strain of *penicillin notatum* grown by submerged culture. Identification was made by a study of the physical properties of the ergosterol as well as those of the benzoate. This work was done by Kenneth Savard and Goldon A. Grant at the laboratories of Ayerst, McKenna, and Harrison, Ltd., St. Laurent, near Montreal, Canada.

Desoxycorticosterone acetate is a remedy which is being investigated at the Long Island College of Medicine to check the intoxication which is known commonly as "radiation sickness." This intoxication is produced by x-ray and radium radiation and has limited the success in the treatment of cancer especially when a large portion of the body is exposed to the radiation. This radiation sickness is believed to be due to substances which resemble histamine or to histamine itself. Desoxycorticosterone counter-

acts the effects of histamine and experiments have shown that it produces a striking reduction in the fat content of the liver. There was no striking difference in the radiation effect on the bone marrow and spleen. The effect upon the liver is expected to increase the efficiency of radioactive substances in the treatment of leukemia and cancer.

Aralen is the commercial name given to a new anti-malarial drug which is one of the results of the extensive anti-malarial campaign conducted during the war. The production of the anti-malarial SN7618 is described in the 1946 YEAR BOOK on page 108. Associated with it is aralen, which chemically is described as 7-chloro-4(4-diethylamino-1-methylbutylamino) quinoline diphosphate. This compound was synthesized in 1944 and has been tested clinically under the direction of the National Research Council. It is claimed to be a cure for certain types of malaria and to be able to suppress the common type, known as vivax, which recurs under normal conditions. Aralen may replace atabrine and quinine. It requires only two tablets a week, whereas atabrine requires 1 tablet per day. Aralen does not discolor the skin. Quantities of the new drug are being sent to the malarial areas for field tests.

Insecticides. Insecticides have advanced extensively during recent years. The United States Tariff Commission shows that the production of synthetic organic insecticides in 1945 amounted to 42,963,000 pounds, valued at $21,903,000.00. Of this amount, more than 75% is the chemical known commercially as DDT, chemically as 4,4'-dichlorodiphenyl-1,1,1-trichloro-ethane. This insecticide (see 1946 YEAR BOOK, page 106) is now available in desired quantities, and its use has extended widely. Much of the recent development in its use has been in the direction of methods of application and studies in its selective action. It is not effective against all forms of insect life. For example, DDT is said to be powerless against the cotton boll weevil, and it is not as effective against flies as pyrethrum. It is likely that the general insecticide of the future will consist of a mixture of materials. DDT has been found to be effective for the destruction of the codling moth in some fruit-growing areas. An emulsion of DDT prepared by the Pennsylvania Salt Manufacturing Company is recommended for use on the walls of hospitals, hotels, laundries, and other service buildings. When the solvent evaporates, the residual DDT crystals are effective in killing most insects which are found in these places. The Sherwin Williams Co. of Cleveland, Ohio, has prepared a suspension of DDT crystals in a synthetic resin. When this suspension is brushed upon screens, porch ceilings, floors, and light fixtures, the material drys quickly, leaving an almost invisible film which is deadly to flies, mosquitos, fleas, ants, and other insects which are affected by DDT. As the surface insecticide is worn away, it is claimed that crystals migrate to the surface prolonging the toxicity, and as a result lasts three months when exposed indoors, and a month for outdoor exposure. Attention has been called again to the danger accompanying the indiscriminate use of DDT. Work done in the Veterinary Laboratory, Ministry of Agriculture, in England, shows that when a 5% solution of DDT in acetone is rubbed on the ears, head, and feet of rabbits, severe poison is produced which is generally fatal. So weak a solution as 0.5% will cause poisoning of young rabbits. These observations emphasize the danger of applying preparations of DDT for the treatment of mange in small animals.

Hexaethyl tetraphosphate is a new insecticide which is being produced by the Monsanto Chemical Company of St. Louis, Mo. The formula is one which has been in use in Germany. It was brought to this country by the American scientific teams. The new insecticide is particularly effective against aphis and mites, both of which are not destroyed by DDT. The new remedy will supplement nicotine sulphate, the supply of which is inadequate for present needs. It is expected that this new material will be used in conjunction with DDT.

Research on an intensive and extensive scale is being conducted on the insecticidal properties of many other compounds such as benzene hexachloride, hexaethyl tetraphosphate, azobenzene (an analog of DDT), TCE (the fluorine analog of DDT), hydroxypentamethylflavan, and ethylene dibromide.

A fungicidal dusting compound has been prepared by the Du Pont Company. It is effective in preventing black spot, powder mildew, and rust on the leaves of roses. The insecticide kyrocide is a dust powder from the natural cryolite ore which is obtained from Greenland. It has been used successfully and extensively in combating the ravages of velvet bean caterpillar which threatened to destroy nearly a million acres of the peanut crop in Alabama, Georgia, and Florida.

Weed Killers. Weedone is the commercial name applied to the weed killer known chemically as 2,4-D (2,4-dichloro-phenoxyacetic acid). This material is recommended for the killing of poison ivy, binweed (wild morning glory), and other broad leaf plants. It is much less harmful to grass and similar plants, such as wheat.

Ship Paint. The development of a successful barnacle-proof paint is claimed by the Battelle Institute, Columbus, Ohio. The paint contains metallic copper which renders the painted surface poisonous to barnacles and similar forms of marine life. It has been tested in various localities and has been given service tests in various sections of the Atlantic Ocean, the Pacific Ocean, and the Caribbean Sea.

The new ship paint has prevented barnacle infestation for as long as two years. This is said to be about four times the service life of ship hull paints meeting ordinary specifications.

Lignin. Lignin, which has been called the greatest waste in industry, is available in very large amounts under present manufacturing conditions. It makes up from 20% to 30 % of the weight of wood. It must be removed in the production of cellulose for the manufacture of fabrics, paper, nitrocellulose, and other products. The removal and disposal of lignin is an expensive process. A recent use for at least part of this material has come from the rubber industry. When lignin is linked with either synthetic or natural rubber in latex form, and then coprecipitated or coagulated, there is formed a material which has increased strength and toughness. This rubber is lighter than that which is prepared with the usual carbon black. It is possible also to produce bright colored articles by mixing pigments with the lignin. The tensile strength of lignin-reinforced rubber compares favorably with rubbers prepared by the best known methods. Other proposed uses for lignin include the manufacture of phenols, cresols, liquid motor fuel, wood sugar, alcohol, and many other products. It is estimated that all the methods now proposed for the utilization of lignin would not consume more than 38% of the enormous amount of lignin which is available.

B. SMITH HOPKINS.

CHESS. The death of Dr. Alexander A. Alekhine, long the world champion, left that title vacant and 1946 drew to a close without a successor having been selected.

Considered among outstanding candidates for the crown are Dr. Max Euwe of Amsterdam and Mikhail Botvinnik, Russian champion, both of whom turned in major triumphs during the year. Dr. Euwe, world champion from 1935 to 1937, triumphed in Section B of the international masters' play at London and was second to Botvinnik at Groningen in the Netherlands. Botvinnik added to his laurels when he led a Russian team to a 12½–7½ victory over a group of United States stars at Moscow.

Mendel Najdorf of Poland, the only contestant to gain a decision over Botvinnik at Groningen, also proved a leader among masters, winning tournaments in Argentina and Prague.

The open championship of the United States Chess Federation was captured by Herman Steiner of Los Angeles, who also triumphed in Section A of the masters' tourney at London. Samuel Reshevsky of Boston won the national laurels for the fifth time and annexed the Frank J. Marshall Trophy, which had been held by Arnold S. Denker of Forest Hills, Long Island, since 1944. Reshevsky regained the honors in New York last fall after Denker had successfully defended the title in a Spring tourney at Los Angeles. The women's national crown was won by Miss N. Mary Karff of Boston.

THOMAS V. HANEY.

CHILDREN'S FUND OF MICHIGAN. A Fund established by James Couzens with a gift of $10,000,000 in 1929 to promote the health, welfare, happiness, and development of children in Michigan, primarily, and elsewhere in the world. During the fiscal year ending Apr. 30, 1946, a total of $759,870.26 was expended. Total assets on that date were $5,996,243.14. Chief officer: Wm. J. Norton, 660 Frederick Street, Detroit 2, Michigan.

CHILE. A republic of South America. Area: 286,396 square miles. Population: 5,237,432 (1943) Capital: Santiago.

Chile varies from 45 to 250 miles in width and its length of 2,660 miles is more than ten times as much as its greatest width. The Andes, a central valley, and coastal ranges divide the country longitudinally, while it is separated latitudinally into the northern mining region, the central agricultural area, and the southern forest and grazing lands. The climate is extremely arid in the north, temperate in the central part, damp and cold in the south.

The People. The Chileans are predominantly of European descent, with some Indian strains. About 15 percent are mestizos and about 5 percent Indians. The largest foreign element is Spanish, but there are sizable numbers of Germans in the south-central area. Population density per square mile varies from 0.5 in the Province of Aysen to 256.3 in the Province of Valparaiso. More than 80 percent of the people live in the central valley. The largest cities are: Santiago, 984,500; Valparaiso, 263,200; and Concepción, 86,000.

Spanish is the official language, but German is spoken and taught in some communities of the country. The predominant religion is Roman Catholic.

According to official estimates, 76 percent of the adult population in Chile is literate. In 1945, 452,826 students were enrolled in primary schools and 55,000 in secondary schools. During 1942 a total of 6,402 students were enrolled in the country's five universities.

Chile has advanced social legislation which provides pensions for sickness, maternity, and old age, as well as for invalids and survivors. The cost is borne by employers, employees, and the State. The Chilean Social Security Fund, established in 1924, handles the funds, and has accumulated capital of more than 54,000,000 pesos. This is a state corporation, which invests in social welfare projects, workers' houses, model farms, apartment houses, etc.

Government. Under the Constitution of 1925, Chile is a centralized republic of 25 provinces. The constitution provides for a bicameral Congress: a Senate of 45 members and a Chamber of Deputies of 147 members. Members of both houses are elected by proportional representation. Congress convenes on May 21 of each year and adjourns on September 18. The President is elected for a 6-year term, and is assisted by a Cabinet of 12 members, of whom one is without portfolio. President Juan Antonio Ríos Morales was elected on February 2, 1942, in a special election made necessary by the death in office of President Pedro Aguirre Cerda, and was inaugurated on April 1 of that year.

Events, 1946. A Presidential election and unusual labor difficulties marked 1946 as a crucial year for Chile. President Juan Antonio Ríos, whose recurrent ill-health forced him to withdraw from the Government in November, 1945, was replaced by Radical Party leader Alfredo Duhalde on January 17.

Acting President Duhalde touched off a serious crisis on January 28 when he issued a decree outlawing the Mapocho and Humberstone nitrate unions in Tarapacá Province for carrying out an illegal strike. The Chilean Confederation of Labor (CTCH), bulwark of the Socialists and Communists, called an immediate protest meeting in Santiago which ended in a skirmish between unionists and police, killing six and wounding at least seventy. As a cabinet crisis was precipitated, and the 300,000 members of the CTCH went on strike the next day, President Duhalde placed the country under a state of siege and ordered the arrest of sixteen CTCH leaders, including Bernardo Ibañez, Secretary General of the Federation.

On January 30 the unions called off the strike after the President lifted the state of siege and released the arrested labor leaders in partial compliance with the CTCH's manifesto, which also demanded the formation of a leftist Cabinet and a break in relations with Spain and Argentina. The Cabinet was partially reorganized on February 1 to include several Socialists and non-partisan military men. The Communist faction of the CTCH, dissatisfied with the reshuffled Cabinet and awaiting Government recognition of the nitrate unions and unionization of farm workers, called another general strike. The Socialist wing of the CTCH, which long had struggled for CTCH leadership, joined the Government and withdrew support of the strike, which it termed a political maneuver. The Communists, however, carried out their promise of a strike, which was most successful in the nitrate plants, ports, copper mines, and coal mines. Complete polarization of the two CTCH groups was accomplished when the Government recognized the Socialists as the "legitimate representative organ of the working classes;" while the Communists refused to recognize the incumbency of Secretary Ibañez. At the end of February it was estimated

that fifteen percent of Chile's workers were on strike.

The Communist party, the best organized in Latin America, constituted a powerful force in the presidential elections scheduled for September. In addition to its control of unions in essential industries, the party was represented in the Chilean Congress by fifteen Representatives and five Senators. Their supremacy in leftist politics was seriously combatted by the end of spring by the Socialists, who held the advantage of having four Ministers in the Government. In union activities, however, the Communists gradually succeeded in achieving overwhelming control. In the May elections for local trade-union boards the Socialists practically disappeared from power. Communist control of unions in coal fields, nitrate plants, and copper mines was supreme. By July the 60–40 ratio between Communists and Socialists that existed in the CTCH at the beginning of the year had changed to about 80–20.

With the death of President Rios on June 27 the groupings in the political campaigns for the Presidential elections became more distinct. Roughly, the struggle was between the right and the left. In 1942 Ríos had been elected by a powerful coalition of the left, known as the Popular Front and consisting of the Radical, Socialist, Communist, and Democratic parties and a faction of the Liberal party. Since the Ríos victory, however, the Popular Front slowly crumbled as interparty quarrels replaced concerted action. By the summer, the left consisted of the Radicals, Socialists, Communists, and Social Catholics as opposed to the rightist parties which included the Conservatives, Liberals, and Labor-Agrarians.

At the end of July the Presidential campaigns resolved into a four-man race. The hope of the rightists that the defection in the Popular Front would splinter the leftist coalition into a number of minor parties, each with its own candidate, was blasted when Gabriel González Videla of the Radical Party received the united backing of the Radicals, Communists and a good portion of the Socialists. During the formation of this Videla coalition, Acting President Duhalde, whom dissident Radicals supported in the hope of effecting a combination with Ibañez Socialists, was expelled from the Radical party "for doctrinary, political and administrative reasons."

The rightists failed to achieve any coalition. After a joint convention of Conservatives, Liberals, and Agrarians, ended on July 14, with no progress toward a reconciliation of differences each party selected a candidate. The Conservatives picked Senator Eduardo Cruz Coke, the Liberals decided on veteran politician and Senate President Arturo Alessandri and the Agrarians chose Jaime Larrain. Within a few days the conservative Agrarians dropped Larrain and adopted Alfredo Duhalde, who resigned as Acting President to accept the nomination. Duhalde also gained the support of the Socialists who had rejected Videla.

Within a week of the September 4 election, the line-up of the rightists candidates abruptly changed. Coke retained the support of the Conservatives but Alessandri and Duhalde withdrew in favor of Alessandri's son, Fernando, who received the support of the Liberals and some Radicals. The dissident Socialists broke away from any combination and ran Bernardo Ibañez, their party Secretary and Secretary General of the CTCH.

The election results gave Videla a clear-cut victory. The final tabulation showed: 191,351 for Videla; 141,134 for Coke; and 129,092 for Alessandri. Despite this victory, Chilean law prohibited the inauguration of Videla because he had not received as many votes as all his opponents. According to the law, Congress would have to meet within fifty days of the election and select one of the two leading candidates as President. In a meeting of the joint session of Congress on October 24, Videla was confirmed as President by a vote of 138 to 46.

In fulfilling his preelection pledges to the Communist party, the President-elect gave three of the eleven Cabinet posts to Communists on October 31. This established a new mark in hemispheric political life; for the first time Communists were assigned to participate officially in the Government of a Latin American country. In many quarters, the appointment of Communists to important ministerial duties was interpreted as an indication that Videla intended to carry out a Communist-supported plan to organize agricultural labor unions and reduce absentee landlordism. Both Liberals and Conservatives had previously opposed the plan strenuously. The Ministries allotted to Communists were: Communications and Public Works, Carlos Contreras Labarco, leader of the Communists; Agriculture, Miguel Concha; Lands and Colonization, Victor Contreras.

Other appointments to the Cabinet were: Interior, Luis Alberto Cuevas, Radical; Foreign Relations, Paul Juliet, Radical; Education, Alejandro Rios Valdivia, Radical; Labor, Luis Bossay, Radical; Economy and Finance, Roberto Wachholtz, "Technician"; Defense—Manuel Bulnes, Liberal; Justice, Guillermo Fuenzalida, Liberal; Public Health, Fernando Salas.

President-elect Videla began his term in office at a time when Chilean economy was caught in a web of inflation and lagging production. The cost of living index rose from 176.4 in 1937 to 445.9 in February, 1946. Since more than half the cultivated land was owned by some 600 landlords, most of the agricultural workers were tenant farmers. In this economy the average worker, who earned about a $1.00 a day, found difficulty in purchasing eggs at $.60 a dozen, or an ordinary shirt at $6.00.

On the eve of his November 3 inauguration, President Videla outlined his national program with the introduction that no one party would dominate his Government. The course of his "National Government" would be guided by four points: (1) the battle against inflation, "the most serious difficulty facing Chile today"; (2) the widening of Chile's industrialization, "with the idea of exporting manufactured items"; (3) the raising of the economic and cultural level of the people, "for the sake of eliminating class division and rates"; (4) the development of education under a less costly system.

After inviting foreign capital to invest in Chilean resources, President Videla explained that the growth of communism in Chile had been caused by a sharp division between the three classes—the rich, the middle class, and the poor. He pointed out that extreme inflation had driven towards the left not only the poor but large segments of the middle class as well. The Communist party in Chile was organized "democratically as a legal and constitutional party," he said.

Condemning an armaments race as incompatible with the principles laid down at the San Francisco meeting of the United Nations, President Videla said, "I don't much like any idea that means an increase in our spending on armaments, which for Chile would mean a heavy load. Almost one-

quarter of our budget now goes for national defense. The armaments race has been one of the bad factors in Latin America. I think the Government should impede an armaments increase. We're too poor to bear the load and need the money to raise the public standard of living."

In his first official address as President, Videla on November 16 called upon his country to wholeheartedly cooperate with the Government and make sacrifices if necessary, in curbing the wild inflation. On the day of the Presidential appeal, inflation had reached its highest level, with the peso worth only 10 percent of its 1939 purchasing power. Earlier in the month, Finance Minister Wachholtz attempted to put a brake to the inflation by suddenly prohibiting all banking advances. The restriction of credits caused a minor panic on the Valparaiso stock exchange, but the crisis passed. The more moderate members of the Cabinet successfully prevailed on Wachholtz to loosen his order and the result was a credit restriction, not so severe as originally intended, but aimed to reduce speculative credit and force goods on the open market.

Another anti-inflation measure was the establishment for 1947 of a minimum national wage, fixed at 25 percent over the 1946 level. The Communist members of the Cabinet almost achieved realization of their long-standing demand for unionization of farm workers, but the liberals obtained a compromise with President Videla, who agreed that the regulation should be fixed by Congress. With the Congress controlled by liberals and conservatives, passage of the bill was unlikely.

International Relations. Diplomatic relations with the Soviet Union, for the first time in Chile's history, were established in April with the arrival of Soviet Ambassador Dmitri A. Zhukov in Santiago. An exchange of diplomatic representatives was also arranged with Australia and Yugoslavia.

The provisional commercial agreement made between the United States and Chile in 1945 was extended for an additional year on July 31. Under the terms of the agreement, Chile granted United States commerce, without compensation, reductions in import duties on many United States products, ranging from cotton cloth to rolled iron and steel. The United States Department of State explained that the unilateral duty concessions were made "in the interest of expansion and liberalization of trade."

During November, Dr. Felix Nieto del Rio, Chilean representative to the United Nations, announced that he had received instructions from Foreign Minister Juliet actively to support the Polish resolution recommending a severance of relations with the Franco Government of Spain.

The economies of Chile and Argentina were dovetailed on December 13 in a far-reaching treaty providing for an exclusive customs union and excluding even those countries involved in a most-favored-nation agreement with either Chile or Argentina. The agreement provided for the establishment of a free port at Valparaiso, giving Argentina access to the Pacific Ocean; the reduction of all tariff barriers between the two nations; the loan of about $150,000,000 for industrialization purposes and the improvement of railroad facilities between Argentina and Valparaiso, and the assurances of a food supply to Chile. Argentina was granted supplies of coal and copper nitrate to aid her industrialization program.

President Videla lauded this pact, saying that it fitted into Chile's policy of supporting the United Nations and Pan American solidarity. Insisting that the agreements were devoid of any political significance, the President said that Chile's foreign policy would be changed in no way. He explained the treaty as an "economic agreement designed to permit Chile to obtain economic independence, without which all democratic formulas are merely statements unsupported by the indispensable conditions of economic development."

Economic Development. A five-year construction plan, designed to bolster Chile's economic structure was approved on September 21 by the Government. The plan calls for the following expenditures: irrigation and soil rehabilitation, $4,268,000; roads and bridges, $4,240,000; railroads, repairs and new lines, $2,450,000; portable water and sewage systems, $2,134,000; harbor works and repairs, $2,134,000; architectural works and sports development, $2,488,000; appropriations for the University of Chile, $240,000. To offset the dangers of placing too much reliance on nitrate and copper exports, which constituted 80 percent of total exports, the Government attempted to purchase farm and industrial equipment in the United States for the development of other industries. In working for a better balance of exports to finance its petroleum and steel industries, Chile also attempted to obtain a loan from the U.S. Export-Import Bank.

In addition, another loan of $20,000,000 was being sought from the Export-Import Bank, to be utilized as follows: agricultural machinery, $3,200,000; copper industry, $600,000; fishing, $500,000; oil industry, $5,000,000; central hydroelectric plant, $5,500,000; lumber, for the development of a pulp and paper industry, $3,400,000; general transport, $3,600,000; cement, $500,000. This made a balance over the requested loan of $2,300,000, which would be supplied by contractors.

On October 18 the Export-Import Bank granted Chile credits of $10,350,000, making a total of $80,000,000 loaned since 1939. Of this sum, $5,000,000 was extended to the Chilean State Railways and the remainder to the Fomento Corporation, a Government agency charged with starting and assisting private enterprise in industrial development.

National Economy. Chile's economic structure rests upon its copper and nitrate deposits. These two products usually compose 70 percent of the total value of exports. In 1944 Chile produced 490,441 tons of copper bars, over 1,100 tons more than were produced in 1943. Nitrate sales in 1943–44 totaled 1,050,555 tons, a decrease of some 190,000 tons from 1942–43 exports. In production of iodine, a by-product of nitrate, Chile leads the world, producing 69 percent. Chile is the leading coal producing country in Latin America, and has important deposits of iron ore, which yield normally about 1,500,000 metric tons annually. Because of transportation difficulties, production in 1944 fell to some 17,670 metric tons. Gold and silver are also mined in some quantity.

Chile's most important agricultural crops are: wheat, rice, oats, and barley. Raised in quantity also are corn, beans, peas, lentils, and fruit. Meat, wool, and wines are major products. Leading crop production for the year 1946 was: (in metric quintals) wheat, 9,510,450; oats, 849,986, barley, 778,757. In 1944 wine production totaled 314,000,000 liters. In 1945 rice production was 1,013,299 metric quintals.

Lack of coking coal, together with such factors as the small domestic market and high cost of credit, have held back industrialization of Chile. What manufacturing there is produces chiefly consumers goods for the home market.

Foreign Trade. Mineral products, principally copper and nitrates, compose Chile's chief exports. Exports of nitrate and iodine in 1944 totaled 976,808 metric tons. But animal products (wool, hides, meat), hemp, fibers, vegetables, nuts, and wines are also exported. In 1944 Chilean foreign trade, including specie, was valued at 1,642,740,000 sixpence gold pesos, of which exports accounted for 944,024,000 and imports for 698,716,000. Mining products exported amounted to 686,423,000 sixpence gold pesos; agricultural products, 61,333,000; animal products, 47,592,000; and food products, 20,974,000. In 1943 the five leading nonmineral commodities exported by Chile were: wool, hemp fibers, rice, sheep hides, and gold bars.

Before 1940 the bulk of Chilean exports went to the United Kingdom and Europe; since then the Western Hemisphere has become Chile's chief market. In 1944, 46.4 percent of Chilean imports came from Latin American countries, chiefly Argentina, Peru and Brazil; these countries took 20 percent of Chile's exports. The United States provided 43 percent of Chilean imports and purchased over two-thirds of its exports, exclusive of sales "to order."

JOSEPH P. BLANK.

CHINA. A republic in eastern Asia. Capital: Nanking (after V-J Day, Sept. 2, 1945, the Government started to move back the various ministries to Nanking from Chungking, the provisional capital).

Area. Including Formosa but excluding Outer Mongolia, the total area of the Republic of China and its dependencies amounted to 3,975,000 square miles (estimated) of which China proper accounted for 3,263,000 (including Formosa and Kwangchowan).

Population. The estimated population of China, including Formosa and Kwangchowan but excluding Outer Mongolia, was 445,250,000 (based on 1940 figures). Chief cities (with estimated prewar population figures): Shanghai 3,490,000, Peiping 1,556,000, Tientsin 1,292,000, Nanking 1,020,000, Tsingtao 515,000, Canton 861,000, Hankow (including Wuchang and Hanyang) 778,000, Chungking 635,000, Wenchow 631,000, Changsha 607,000, Hankchow 607,000, Weihaiwei 390,000, Foochow 323,000, Soochow 260,000, Amoy 234,000, Ningpo 219,000, Wanhsien 202,000.

Education. According to available figures for 1945 there were 258,283 primary schools and 17,721,103 pupils, 3,455 secondary and vocational schools and 1,101,807 pupils, and 145 institutions of higher education with a total of 78,909 students.

Religion. With the exception of Christians and Mohammedans, most Chinese practise and profess all three indigenous or adopted religions—Confucianism, Buddhism, and Taoism. The Mohammedans are estimated at over 48,000,000. In 1934 there were 2,623,560 native Roman Catholics and 123 Catholic missions, with a staff of 16,241. The Protestant churches, with 1,130 mission stations and 488,539 communicants in 1932, had 19 colleges, 267 middle schools, and 37,714 students in 1934. The number of Christian missionaries in China declined from nearly 6,000 in 1937 to about 3,600 on June 30, 1941.

Government. The Organic Law of Oct. 4, 1928, revised Dec. 29, 1931, and Dec. 27, 1932, vested the supreme governing powers of the National Government of the Republic of China (inaugurated Oct. 10, 1928) in the National Congress of the Kuomintang (Nationalist Party), acting through the medium of the Central Executive Committee. On Sept. 10, 1943, the Organic Law was revised to provide for the selection and appointment of the President of the National Government and of State Councillors (from 24 to 36) by the Central Executive Committee. The head of the Government is chairman of the State Council. Included under the National Government are five yuan (branches or councils)—Executive, Legislative, Judicial, Examination, and Control. President of the National Government of China and Commander in Chief: Gen. Chiang Kai-shek (elected Sept. 13, 1943; assumed office, Oct. 10, 1943, for a three-year term).

Following the outbreak of war with Japan in 1937 a Supreme National Defense Council (headed by Chiang Kai-shek) assumed direction of all political and military affairs. It included the heads of all party, political, and military organs together with other members who were nominated by the chairman and approved by the Council.

The Cabinet ministers at the beginning of 1946 were: President of the Executive Yuan—T. V. Soong (Sung Tze-wen); Interior—Chang Li-sheng; Foreign Affairs—T. V. Soong (Sung Tze-wen); Military Affairs—Chen Cheng; Finance—O. K. Yui (Yu Hung-chun); Economic Affairs—Wong Wen-hao; Education—Dr. Chu Chia-hua; Communications—Tseng Yang-fu; Agriculture and Forestry—Adm. Shen Hung-lieh; Social Affairs—Ku Cheng-kang; Food—Hsu Kan; Justice—Dr. Hsieh Kwan-sheng (Sie Kuan-sheng); Overseas China Affairs—Liang Han-chao; Organization—Chen Li-fu; Information—Wang Shih-chieh.

Events, 1946. After eight years of war China, with the other nations of the world, presumably entered an era of peace and reconstruction. Japan had been defeated, the war lords had quit their factional strife and the struggle between the forces of the Kuomintang and the Communists had subsided to await the outcome of United States-sponsored mediation. Late in 1945 General George C. Marshall, former United States Army Chief of Staff, had been appointed United States representative in China. General Marshall was confronted with the complicated task of settling a compromise with the two factions. Without an end to the enervating civil war, China's much-needed agrarian reforms and latent industrial strength would take secondary importance as postwar problems.

The year opened with the Central Government of Generalissimo Chiang Kai-shek accepting the Communist proposal for a suspension of hostilities and arbitration of military differences, and offering the suggestion that General Marshall act as arbiter between the Government and the Communists "in all matters pertaining to the cessation of hostilities and the restoration of railway communications" in China. The reference to the opening of railways appeared to make the Communists dubious, for it possibly pertained to the transportation of Government troops into Communist areas to "repatriate Japanese," and would thus endanger the Communist military positions in those areas. Furthermore, the Communists hesitated to place themselves in a position where they might possibly have to reject the proposals of the United States representative. They tended to view United States mediation against the background of long-continued aid to the Government during the war and the transportation of Government troops on United States ships to Manchuria.

On January 5, three days after the Government forces had launched an attack into the province of Jehol on the southwest border of Manchuria, both

sides agreed to meet with General Marshall for formal conferences on ways to halt the civil war and reopen communications. The Government was represented by General Chang Chun, Governor of Szechwan Province, and the Communists by General Chou En-lai, leader of the Communist delegation in Chungking.

Simultaneous with the announcement on January 10 that the three generals had reached an agreement which brought a cease-fire order to the civil war fronts, Chiang Kai-shek opened the first session of a Political Consultation Conference at Chungking by proclaiming a far-reaching series of democratic and political reforms in China. In addition to halting hostilities the truce provided for the restoration of war-blocked communications and the establishment of a control organization, with American participation, to carry out the armistice agreements. Government troop movements in Manchuria and south of the Yangtze River were not effected by the truce, the nature of which constituted a compromise for both sides; by agreeing to Government troop movements in Manchuria, the Communists recognized to an extent the sovereignty of Chungking in that area, while Chiang Kai-shek modified his demands for Government penetration into the Chahar and Jehol provinces, thereby giving tacit consent to Communist control.

In his address to the Political Consultation Conference, consisting of thirty-eight representatives of nine parties and some non-partisans, Chiang Kai-shek presented the following Government steps for a new Chinese Bill of Rights: Measures to insure freedom of person, of conscience, of assembly and of publication; the end of the state secret police and new rulings under which only the proper judicial and police authorities would be permitted to make arrests, try, or punish individuals; equality of all legal parties before the law and their right to engage in activities within the law; release of all political prisoners except traitors who have committed injurious acts to the Republic and promotion of local self-government throughout the nation, with popular election to be held "according to the law" and from the "lowest strata upwards."

"What we have to consider here," Chiang said, "is a fundamental plan that will lead from war to peace, from resistance to reconstruction." He concluded his outline of democratic reforms by assuring the Conference that he would accept their decisions if they benefited national reconstruction and promoted popular welfare.

After three weeks of debate and discussion, during which the Communists agreed that Chiang would retain power as leader of China's new coalition government and the Democratic League delegation staged a one-day walkout because the police searched the home of one of their members, the Conference on January 3 unanimously approved a broad program to unify the nation militarily, politically, and socially. Within the frame of the adopted program, all factions represented at the Conference—the Kuomintang (Nationalists), Communists, the Democratic League, the Youth party, and minor parties —would contribute to the coalition all-China government, which, it was hoped, would bring peace to China for the first time since the Nationalist Revolution of 1926–27.

The program called for a three-man committee, advised by General Marshall, to work out the reorganization and merger of the Kuomintang and Communist armies with the object of reducing Government troops from 253 divisions to 90 and limiting the Communists to 20 divisions within six months. It forbade political parties to carry on activities, open or secret, within the armed forces, prohibited soldiers from engaging in political activities while on active service and asserted that no party or individual may use the army as an instrument of political rivalry.

In the field of civic and economic reform the program introduced immediate freedom for all political groups and abolished wartime censorship of the press and other information mediums, like radio and motion pictures. The question of regional autonomy which involved the future status within the government framework of Communist China with its own laws, taxes, currencies, and political system was avoided. The program stated that "local self-government should be actively pushed and popular elections, beginning from the lower administrative units and gradually ascending to the highest unit, should be carried out, and provincial district municipal councils should be established throughout the country at an early date, the district magistrates to be elected by the people." In areas under dispute, the status quo was to be maintained until a decision could be made by the reorganized Nationalist Government. Economic reforms included state participation only in enterprises of a monopolistic character or those that cannot be undertaken by private business, the lowering of farm rents, the abolition of tenancy, and the publication of a budget.

A coalition government would provide an interim regime until a constitution was adopted and put into effect, after which the Government would be an expanded "State Council" of forty members, with the Kuomintang holding half the seats. Twenty seats would be divided among the Communists and other parties. Earlier in the discussions, the Communists' proposal for limiting the Kuomintang to one-third of the seats was not supported.

The optimistic hopes stimulated by the Conference results grew dim as new political and military strife widened the gap between the Kuomintang and the Communists. A fresh outbreak of civil war occurred in Manchuria in mid-February as Kuomintang forces occupied the rich area directly after Soviet withdrawal. Government troops, transported by the United States Navy with the approval of General Marshall, met Communist opposition when they landed on Manchurian soil and captured Liaochung. General Chou En-lai predicted a widespread revival of strife unless the Kuomintang consulted with the Communists and other parties in Manchuria regarding peaceful and coordinated plans for the re-establishment of the Chinese administration in the province. Stating that the Communists, with their headquarters in Yenan, controlled 300,000 troops in Manchuria, Chou said that Government attempts to take over Manchuria by force would be met by force and suggested a three-man commission, composed of General Marshall, himself, and Koumintang Gen. Chang Chih-chung to handle the Manchurian military problem.

The slow withdrawal of Soviet troops from Manchuria gave additional cause for Nationalist anxiety. According to the terms of the 1945 Sino-Soviet treaty, the Soviet Union recognized China's sovereignty in Manchuria and agreed to remove troops by February 1. Chiang felt that the continued presence of Soviet troops after that date jeopardized the possibilities of peace and threatened economic and political stability in that province.

The Manchurian question provided the true crux of controversy and struggle between the Nationalists and Communists in the foreground and the United States and the Soviet Union in the

background. Manchuria, almost twice as large as Texas, holds the richest farm lands and mineral deposits in the Far East. To the Chinese, the future of China seems inalterably linked to Manchuria, containing 70 percent of China's industrial capacity which would prime the entire industrial, economic, and monetary revitalization of the nation. To the Japanese, Manchuria was the heart of its Manchukuo Empire between 1932 and 1945 and constituted not only a major source of raw materials, coal and agricultural products, but a great source of finished iron and steel products. To the Soviet Union, presence in Manchuria was of high strategic and economic importance since it provided the Soviet Union with its only ice-free ports to the Pacific.

The measure of Manchuria's importance to the U.S.S.R. was reflected in the agreements of the secret Yalta Conference between the late President Roosevelt, Prime Minister Churchill and Generalissimo Stalin on February 11, 1945, in which the U.S.S.R. undertook on certain conditions to enter the war against Japan. The agreements, made public by the U.S. Department of State on February 11, 1946, included: (1) the status quo in outer Mongolia shall be preserved; (2) the former rights of Russia destroyed by the Japanese attack of 1904–05 to be restored, i.e. (a) the southern part of Sakhalin as well as all the islands adjacent to it shall be returned to the Soviet Union; (b) the commercial port of Dairen shall be internationalized, the pre-eminent interest of the Soviet Union in this port being safeguarded, and the lease of Port Arthur as a naval base of the U.S.S.R. restored; (c) the Chinese Eastern railroad and the South Manchurian railroad which provide an outlet to Dairen shall be jointly operated by the establishment of joint Soviet-Chinese Company, it being understood that the pre-eminent interests of the Soviet Union should be safeguarded and that China should retain full sovereignty in Manchuria; (3) the Kurile Islands shall be handed over to the Soviet Union.

The absence of any real conciliation over Manchuria brought a statement on February 17 from General Chou that unless the Nationalists confer with the Communists and other groups in Manchuria on peaceful and cooperative methods for the reestablishment of a Chinese administration in the northeastern provinces, resumption of civil war could be expected. According to the January 10 truce, both sides were to refrain from attacks and Nationalist troops were to be permitted to move into Manchuria. Early in February Communist headquarters asked for joint participation in the control of Manchuria on a coalition basis, similar to the plan for the reorganized Chinese Central Government based on a coalition of parties.

During the tender period of negotiations between the Nationalists and Communists on the Manchurian settlement, and the Nationalists and the U.S.S.R. on the evacuation of Soviet troops, persistent but unofficial reports in American newspapers claimed the U.S.S.R. was bargaining for additional concessions in Manchuria before withdrawing. Further reports indicated that the Chinese were taking a firm stand in the position that no economic adjustments would be made so long as Soviet troops remained in Manchuria.

A gradual change occurred in Chinese attitude toward Soviet inclusion in Manchurian activities. When the Sino-Soviet treaty of 1945 was made, the Chinese accepted the Yalta agreements and used them as a basis for the treaty. During the early months of 1946, public demonstrations and Chinese newspaper editorials demanded speedy Soviet retirement from Manchuria. On February 23, seven high Chinese Government officials protested to the Foreign Office against the secret Yalta agreements because China was not a signatory to the decisions and therefore could not consider them binding. Within two days of the protest, Chiang restated China's sovereignty in Manchuria and declared that negotiations with the Soviet Union would be based on Chinese law, the August 14, 1945 treaty and the international treaties to which China was a signatory.

On February 26 the Moscow radio said that the "greatest part of Soviet troops had left Manchuria."

In March the Soviet Government, in reply to a Chinese note requesting immediate withdrawal of Soviet troops, delivered a note stating that the withdrawal of Soviet troops would be completed by the end of April. Foreign Minister Wang Shih-chieh, who made the announcement before the People's Political Council, reiterated China's reparation claims on all Japanese public and private properties in China, including the northeastern provinces (Manchuria) and Formosa. Simultaneously with the Soviet note, reports indicated that the Communist were consolidating their positions in the northern provinces of Manchuria and the Government forces were fanning out in a broad eastern movement from their base in Mukden.

The Manchurian problem was intensified and complicated by reports that the Soviet was removing industrial machinery as they evacuated. The Communists were loathe to relinquish their hold on the northern provinces until they were certain of their position in the projected new government, for the right wing of the Kuomintang condemned collaboration with the Communists. Because of mutual distrust no solution appeared to crystallize. The Communists claimed they had no objection to the Government establishing "sovereignty" in Manchuria by occupying the Peiping-Mukden railway and the main Changchun railway, but vigorously opposed Government maneuvers to obtain flanking terrain to these main routes.

Until the Communists saw concrete evidence of the type of political regime intended for Manchuria and the rest of China, it appeared unlikely that the plans for political and military unity would be realized. On February 25 the Communists entered a formal agreement on the military integration of their forces into the National Army. The agreement stipulated that within eighteen months China was to have a single, unified army of sixty divisions composed of fifty Government and ten Communist divisions, which would be combined into three-division armies commanded by both Nationalist and Communist generals. Divisions would be limited to 14,000 men. If the terms were carried out, China would reduce her combat ground forces from an estimated 3,000,000 to 840,000 men. At the time of the treaty, total forces in China, including administrative and service personnel and irregular units, numbered 6,000,000, with the Government forces accounting for 4,800,000.

The failure of the Political Consultation Conference, the advisory body that met in March, to achieve progress in Kuomintang-Communist relations resulted in new military clashes in north China. The Communists boycotted the opening of the Conference's Spring session, claiming no progress could be made because the majority strength of the anti-Communist right wing of the Kuomintang would undermine any Kuomintang-Communist cooperation. When the Communists finally

entered the discussions, disagreement arose over the apportionment of positions in the new Government and the problem of provincial autonomy. The Kuomintang stirred argument by advocating changes in the original PCC principles to place over-all authority in a popularly selected national assembly, which would elect the President and exercise the rights of initiative, election, referendum, and recall.

They desired the President, who would be Chiang Kai-shek, to have the widest prerogatives of powers, while the Communists and the Democratic League sought to curb presidential powers by a strong popularly-elected legislature that could dismiss a cabinet. The same disagreement on executive power was evident in the Communists' wish for extensive provincial autonomy against the Kuomintang efforts to have the provinces ruled from the center.

In the apportionment of government posts, the Communists sought sufficient representation on the State Council to have veto power over major disputes and hold at least two of the major ministries of the executive Yuan. The Communists and the Democratic League favored the original PCC constitution with its provision for a more or less orthodox parliamentary system and an Executive Yuan responsible to the popularly elected Legislative Yuan. The President would be popularly elected and would have limited powers. The rupture between the two leading parties was intensified by an attack on Chiang Kai-shek printed in the *Emancipation Daily News*, Communist organ of Yenan, which charged the President with attempting to perpetuate a personal dictatorship by rejecting the original PCC agreements and refusing to recognize the Communist-promoted local governments in Manchuria.

As the most powerful opposition party in China, the Communists set themselves up as the leading party of progress and the champion of agrarian reform. They directed their appeal to the peasant masses, claiming that the object of the revolution was a new life for the masses of China and the new life began with economic betterment. Their program set forth the promise that only by exercise of political power could this economic betterment, involving literacy and technical training, be achieved. And this could not be achieved so long as the moneyed official classes and the vested interests of the landlord retain government power.

To the Communists the machine of revolution was a strong political organization, with every member submitting wholeheartedly to party discipline. As a self defense measure, the party must work often in secret and must maintain an army. The whole program was bound together by the needs of the peasants with whom party cadres must work and live.

As regards the Chinese Communists' conjectured link with the Soviet Union, John K. Fairbank, former chief of the U.S. State Department's information and cultural program in China, wrote that "The Chinese Communists are genuine communists and are proud of it. Their affinity with Soviet Russia is doctrinal and theoretical; it does not need to be practical or procedural. Concrete evidence of their maintaining close contact with the Soviet Union is surprisingly scarce; the Russians on their part maintained a surprisingly correct record of wartime aid to Chungking, not to Yenan."

The practice followed by the Communist after achieving control of an area is to stimulate and propagate meetings between landlords and tenants. Since the landlords are in the minority, they usually accede to their former tenants who are reimbursed with land, money, and chattel for past grievances. Many of the big landlords joined the Communist "voluntarily" and redistributed their land. In Manchuria the Communist won wide groups of peasants to their program by redistributing vast areas of rich farmland confiscated from Japanese settlers. Although large landholding estates were still possible under the Communists, since the buying and selling of land was prohibited, the practice was discouragd by low rents and interest rates.

With their efforts to reduce landlordism, the Communists have tried to persuade the moneyed population to invest in industrial and business enterprises. They reduced taxes on industrial plants and often offered subsidies to encourage a growth of production. Their program included government ownership of key industries and utilities, but welcomed foreign capital if "it were employed in full accord with the laws of China" and "to the mutual advantage of the investor and the country."

The Kuomintang Party, led by Chiang Kai-shek, was the original radical party during the 1926–1927 revolution. By a process of gradual metamorphosis occurring as the party entrenched itself, its composition split up into cliques ranging from extreme conservatism to leftism. In 1946 the party, containing about 3,000,000 members, had a central executive committee of 222 and a standing committee of 36 members.

The most powerful group within the party were the conservatives, led by the Kuomintang Minister of Organization Chen Li-fu, which dominates the common membership of the Kuomintang through a closely-knit organization that goes down through all stratas of the party. Several army cliques compose the "Whampao Cadets," under the top leadership of Gen. Ho Ying-chin, former Chief of Staff, which stresses militarism and vigorous opposition to the Communists. A mildly liberal group, founded by Yang Yung-tai, former Governor of Hupeh, aims at promoting subordination of the military to scientific administration, industrialization and agricultural reforms. Farther to the left are minor groups headed by Dr. Sun Fo, head of the Legislative Yuan and son of Dr. Sun Yat-sen, and Shao Litze, Secretary-General of the People's Political Council, a 290-man body established in 1937 to advise the Supreme National Defense Council. Within the realm of the Kuomintang were special interest groups of bankers and industrialists, roughly equivalent to the American lobbyists, who worked to promote action to their own advantage.

The strength of United States economic influence and aid, supplied in relation to the Manchurian issue, the Kuomintang-Communist civil war and the general political and economic future of China caused considerable controversy both outside and within China. Though the United States disavowed interference in China's internal affairs, the policy, as defined by President Truman in December, 1945, was to help China effect a coalition government by having the Kuomintang yield a part of the exclusive control of the Central Government to other parties for a transition period until a permanent constitutional democracy could be instituted.

The United State House of Representatives on March 12 overwhelmingly approved a bill, intended to "help maintain peace in the Orient," which permitted President Truman to lease or donate 271 small naval vessels to the Chinese Central Government and to provide American technical advisors and naval services. The bill permitted the

President to send, in addition to a mission of 300 officers and men, floating docks and other material necessary for "augmenting and maintaining" the Chinese naval establishment.

At the same time General Marshall revealed that several of the Government divisions which were embarking for Manchuria on American vessels had been trained and, to a large extent, equipped by Americans. In all 39 Chinese divisions had been trained by Americans.

Shortly thereafter Lieut. Gen. Albert C. Wedemeyer, commander of U.S. Army forces in China, announced the disbandment of Army forces in China and the reversion of Marine forces to Navy authority. Thirty thousand marines were maintained in north China and, although no word was mentioned about their withdrawal from China, they were being demobilized rapidly.

General Chou, apparently alluding to the United States support of the Central Government, voiced opposition to any assistance, particularly financial, from any "Allied nations" to the Chinese Government. Arguing that the Government should receive no foreign aid until it had been reorganized on a democratic coalition basis, General Chou claimed that the existing aid would only augment disorders and suffering, and facilitate one-party rule.

During the fall and winter of 1945 the Communist press carried repeated stories charging American planes with strafing and bombing of Communist troops. On April 21 Communist newspapers charged that American planes had strafed Communist troops in the Szeping-kai area and that Communist forces had found the body of an American airman in one plane that had been shot down. General Marshall branded the charges false and presented a memorandum to General Chou asking for proof of the charges or a retraction in the papers that printed the story. General Chou said he knew nothing of the incident.

The Export-Import Bank on January 17 approved a grant to China of a $33,000,000 credit for the purchase of American cotton, with repayment to be made 24 months after the arrival of the cotton.

The Chinese stand with the Soviet Union on Manchuria was supported by the United States in a note sent by Secretary of State James F. Byrnes to the U.S.S.R. government on March 5. The contents of the notes were not divulged, but it was apparent that consideration was given to Allied interests where they were involved and the Open Door principle where economic rights were at stake. The note was based on Chinese objection to two Soviet moves; one was the reported Soviet removal of Manchurian industrial equipment on the grounds that it was war booty and other involved the proposal for joint Sino-Soviet operation of Manchurian industries.

The note was prompted by the Chinese response to a State Department request on February 9 for information on the Manchurian discussions. The Chinese answer on January 21 stated that all Japanese enterprises in the Chinese northeastern Provinces which had served the Japanese army were regarded "as war booty of the Soviet forces." Chinese refusal to adopt this view resulted in a Soviet note proposing to turn part of the Japanese enterprises over to the Chinese and to have the remaining enterprises operated jointly by China and the Soviet Union. United States attitude objected to private Soviet and Chinese negotiations on Manchurian industries because it was contrary to the Open Door Policy and contention also was made that disposition of Japanese assets was a matter to be determined by an inter-Allied reparations commission.

The issue around the status of Manchurian industrial machinery brought a report on July 23 from Edwin W. Pauley, special reparations investigator for President Truman, that Soviet removals of key machinery in Manchuria had incapacitated more than $2,000,000,000 worth of industry. Coal mines which provided the entire Far East with fuel were threatened by floodings, Mr. Pauley said, because generators used to provide power for drainage pumps had been removed during the Soviet occupancy. A request had been rushed to General Douglas A. MacArthur, the Supreme Allied Commander, to send power equipment from Japan to avert the mine floods, Mr. Pauley reported, but no action had been taken by the Far Eastern Commission.

Despite the expeditions of truce teams to the critical Manchurian areas, the civil war, fanned by political disagreements, flamed anew along the Peiping-Mukden Railway in northeastern China where Communists attacked to prevent Government troops from taking over Manchuria. The Communist *Emancipation Daily News* charged Chiang with attempting to perpetuate a personal dictatorship by rejecting the PCC agreements for cooperation with the Communists. On April 14 the rupture was pronounced by General Chou in a statement proclaiming the existence of all-out hostilities in Manchuria. Chou said that the move was made necessary by Government efforts to drive the Communists from Manchurian areas where the Russians had withdrawn. Two hours before the Soviet withdrawal in mid-April from the important city of Changchun the Chinese Communists launched a full-scale offensive that captured the city after several days of heavy fighting. The capture of Changchun marked Communist control of 70 percent of Manchuria's territory with a population of 26,000,000 of the total 38,000,000 inhabitants, according to Gen. Peng Chen, secretary general of Communist headquarters in Manchuria. Within a week the Communists marched unopposed into Harbin, then successfully carried their attack northwest to the important rail center of Tsitsihar, capital of Heilungkiang Province. After President Chiang moved his capital from Chungking to Nanking on May 1, where Sun Yat-sen, "father of the Chinese Republic" was entombed, new fighting broke out at Hankow along the Yangtze River.

As the epidemic of battle spread down through north and central China, truce teams composed of Kuomintang and Communist members with the staff of General Marshall's mission, strived to reach critical battle areas. They succeeded in negotiating cease-fire agreements on the Honan-Hupeh border in Central China and in Shantung Province. At the same time, however, the Government pushed an offensive against new Communist troop-massings in the North China provinces of Shantung, Hopeh and Jehol, which led to a breakthrough and the easy recapture of Changchun on May 23.

The return of Changchun to Government control paved the way for new negotiations. The gradual withdrawal of Soviet troops from Mukden, Manchuria's' largest city, sparked a revival of a direct Nationalist-Communist military activity. On March 10, the Russians turned over their garrison duties to a force of 14,000 Nationalist troops that had been in Mukden for several weeks, awaiting their departure. On the following day street fighting broke out as the Nationalists declared martial law and awaited reinforcements.

The first "exchange of views" that took place in Nanking on May 25 was followed by a warning from General Marshall that China was "trembling on the verge of an even greater calamity" than World War II. He said it was "ironical that the people who endured the war longest should see peace restored to the rest of the world while they continue to suffer and starve in war-ridden surroundings." General Marshall's' efforts were successful on June 5 when each side agreed to a fifteen-day truce for the purpose of finding a solution to the Manchurian crisis. President Chiang indicated that his armies would resume the fight, the New York *Times*, reported, unless satisfactory settlement was made for the following matters: Specific arrangements for the ending of hostilities in Manchuria; detailed arrangements and schedules for the restoration of communications throughout China, and a definite arrangement for the prompt execution of the February 25 agreement for the "demobilization, reorganization, and integration of the armed forces of China."

The truce preceded a period of negotiations, accusations, and counter accusations that actually left no road open to peace. The Government charged the Communists with breaking the truce by attacking in Manchuria, while the Communists made similar counter-charges. During an eight-day extension of the armistice, Gen. Mao Tze-tung, the Communist party chairman, demanded that the United States cease all military aid to the Chinese Government and immediately evacuate all American forces from China. Asserting that American presence menaced the security and freedom of the Chinese people, General Mao proclaimed Communist opposition to the further "selling and exchange of lend-lease goods and the presenting of arms by the United States Government to the Kuomintang dictatorial Government and the sending of a military advisory group to China."

General Marshall's plans to bring a Kuomintang-Communist rapport were blocked by a deadlock on the integration of the army and the assignment of various units to specific garrison areas. As the parley bogged down and negotiations were surrounded by a "no peace, no war" atmosphere, Government troops occupied Hsuan-huatian and trapped 60,000 Communist forces in a north Hupeh pocket. The truce was extended to June 30 as little progress was made.

During the several days lull in negotiations and fighting, announcement was made from Washington that President Truman had nominated Dr. J. Leighton Stuart, president of Yenching University at Peiping, Ambassador to China. Both Nationalists and Communists approved the selection of Dr. Stuart.

The frequent charges of abuses in the distribution in United Nations Relief and Rehabilitation Administration supplies in China was brought up for inquiry before the Agency's Council Committee for the Far East on June 9, which recommended at the time that the CNRRA, China's exclusive agency for the distribution of UNRRA supplies, cease its practice of financing itself through the sale of UNRRA supplies and through loans from China's Central Bank. The CNRRA operated on a yearly budget of 210,000,000,000 Chinese dollars (U. S. $105,000,000) and, according to its own report, hoped to sell one-fifth of the UNRRA supplies for financing purposes. During the first six months of 1946 more than half of CNRRA operating expenses of 43,000,000,000 Chinese dollars came from the sale of UNRRA supplies, mostly flour.

The charges of mal-distribution were increased when three hundred employees of UNRRA, representing sixteen nations, telegraphed Director General Fiorella H. LaGuardia a month later that the persistent misuse of supplies by the Chinese Government might justify the halting of food shipments. They charged the Government with using the supplies as a "political weapon" and not making sufficient effort to stop deterioration of large stores of food, pilfering and the siphoning of supplies into the black market, while Chinese in anti-Government areas starved. The Government was accused of crippling UNRRA operations and projects in many sectors by failing to provide funds. The message constituted the employee's reply to the Chinese Government, which had previously informed the United States State Department that J. Franklin Ray, director of China supplies, was "persona non grata" because of his criticism of the Government's alleged mishandling of UNRRA food.

Simultaneous with the report of this message, Director General LaGuardia announced the termination of shipments, other than emergency food, until goods in Chinese ports had been cleared into the provinces. After the ports had been cleared, he said, shipments would be resumed. He pointed out that China's allocation of $560,000,000 was the largest of any nation and that the clogged ports could be attributed to bad inland transportation.

Charging the Government with political discrimination and inefficiency, Tung Pi-wu, member of the Yenan peace mission and former delegate to the San Francisco United Nations Conference, said that only one-half of one percent of all UNRRA supplies had reached Communist areas, where 26,000,000 of China's 42,000,000 "war victims" lived. Dr. T. F. Tsiang, chief of CNRRA, defended the work of his organization and contended that the ravages of war, not political discrimination, had blocked the flow of supplies to the interior. He styled Tung Pi-wu's allegations "misleading" since many of the Communist areas in the interior were difficult to reach, especially with the breakdown of communications and the military activities of both sides. Furthermore, he said, statistical percentages did not reveal the true situation because much of the UNRRA supplies included non-distributable components such as railroad locomotives and other functional equipment.

Because of the UNRRA and CNRRA policy in not endangering the lives of their personnel, the expanding scope of the civil war, particularly in northern China, curtailed much of UNRRA's operations. Activities in August had to be suspended in Taiyuan, capital of Shansi Province and Kaifeng, capital of Honan.

Secretary of Agriculture Clinton P. Anderson confirmed the "weakness" of the Chinese Government in handling relief supplies and corroborated the details of the July 9 order that cut China off from all UNRRA supplies except essential foods. Shipments to China dropped from 250,000 long tons in June to 65,000 long tons in August. By October LaGuardia only partially lifted the restriction on shipments into China, to the disappointment of CNRRA officials who claimed the ports were capable of handling a resumption of the full supply program.

As the summer heat drove both parties away from Nanking, the prospects for peace waned. Leaders of the Democratic League, the middle-of-the-road party, prophesied a full-scale civil war with the breakdown of negotiations. The deterioration of negotiations gave way to pessimism with the murder of two liberals, Professors Li Kung-po and Wen Yi-tu, in Kunming. Both men had ad-

vocated a coalition government and were influential in the publication of *The Democratic Weekly*.

In the Yangtze valley the civil war erupted anew as Mme. Sun Yat-sen, widow of the founder of the Chinese Republic, broke a two-year silence on July 22 by denouncing Chinese "reactionaries" who fomented the civil war. Declaring that the civil war, though undeclared, had already begun, she said that the reactionaries were fanning the civil war "because they hope civil conflict in China will incite war between the United States and the U.S.S.R., and thus, at last, crush the Chinese Communists." She said that the crisis was not a question of one side or the other winning, but of the unity and livelihood of the Chinese people. After saying that General Marshall's efforts to obtain peace had been "deliberately and systematically sabotaged by the forces of reaction . . . which hold positions of prominence in the leadership of the National Government," Mme. Sun called for an end to the "period of tutelage," inauguration of an agrarian reform program, withdrawal of American forces in China and discontinuance of loans and aid to Chiang until the government is representative of all China.

Mme. Sun's speech drew responses indicative of the sharp division of opinion on American policy. In China the bulk of the press ignored or gave negligible space to the speech. Dr. V. K. Wellington Koo, the newly accredited Chinese ambassador to the United States, speaking at a press interview in Washington said that Mme. Sun's views did not represent the opinions of "the great bulk" of the Chinese people and that the Government required the assistance of the United States to disarm and repatriate the Japanese and maintain the lines of communication. On the same day, Brig. Gen. Evans F. Carlson, retired leader of "Carlson's Raiders" in the Pacific warfare, strongly supported Mme. Sun's statements and her right to speak for the Chinese people. In Washington, officials indicated there would be no change in American policy in China until General Marshall so recommended. All shipments of arms and munitions on a lend-lease basis had ceased before June 30, they said, and no shipments would be made till Congress passed a bill approving American aid in training a unified Nationalist-Communist Army.

The civil war continued particularly active in the central provinces where Communist attempted to cut Government lines of communications in the Shantung and Honan provinces. A Communist proposal on July 27 to unconditionally end the civil war was rejected by Minister of Information Peng Hsueh-pei, Government spokesman, because it contained no solutions for the vital issues of Manchurian control, reorganization of the Communist-Kuomintang armies and the reopening of communications. On August 2 the Communists accused the Government of using American-made planes to bomb Yenan, capital of the Communist party.

With the widening rift in the civil war and the tension caused by the presence of American troops and arms, the number of incidents and brushes between Marines and Chinese increased. Late in July seven Marines were kidnapped and subsequently released by the Communists as a protest measure against "unauthorized incursions" by the marines into Communist-controlled regions bordering North China's railway lines. This was followed by a Communist ambush and shooting affray with a Marine convoy along Tientsin-Peiping highway in which several marines were killed and wounded. The Communist spokesman pleaded self-defense in the incident and urged the Marines to leave China. Any Communist hopes for Marine withdrawal vanished with a U.S. State Department announcement that the United States had no intention of withdrawing the Marines garrisoned in China. In commenting on the ambush incident, Admiral Charles M. Cooke, commander of the United States Seventh Fleet, said that the Marine convoy was hauling supplies for the Government's Executive Headquarters in Peiping and described one of the Marines' missions as the "reestablishment of stabilized conditions."

The growing intensity of the civil war and the failure of either side to make concessions brought an admission on August 10 from General Marshall and American Ambassador Stuart that "it appears impossible for the two sides to reach a settlement. . . . which would permit a general order to be issued for complete cessation of hostilities in all of China."

"Certain of the unsettled issues relate to military redistributions of troops. However, these apparently present less difficulty of settlement than the more fundamental issue concerning the character of local or county governments to be maintained in regions which would be evacuated as the result of military redistributions pending basic decisions of such matters by a constitutional assembly."

The joint statement was issued as stubborn warfare spread to parts of Kiangsu, Hopeh, Honan, Anhwei, Shantung and Shansi provinces and negotiators of both sides failed to surmount the impasse constructed by the following problem: before the Communists agreed to the integration of armed forces and a possible minor role in the new regime, they insisted on a thorough political settlement and activation of reforms; the Kuomintang, on the other hand, desired the military merger first because they feared that the Communists, supported by any great military force, would work to extend their hegemony over all China.

Four days later Chiang promised to end Kuomintang one-party rule and institute a constitutional Government without delay. Political disputes would be settled by political means, Chiang said, "but only if the Communists give assurance and evidence they will carry out the truce agreement, restore communications, respect decisions of the executive headquarters and integrate their army into the National Army." In outlining his new program, he said that the Governments new policy would include:

Quick termination of the present political Government and opening of the National Assembly on Nov 12;
Compliance and execution of the Political Consultation Council agreements;
Inclusion of all parties and non-partisans in the new Government;
Obedience to the January 10 truce agreements if the Communists withdraw from areas where they threaten peace and obstruct communications;
Protection and security to people and their properties.

Chiang sketched what he described as Communist violations of agreements and hoped the Communist party would "change its policy of seizing power by military force and transform into a peaceful party." "We must put down rebellions," he said, "and make China a peaceful democratic, unified, strong country."

Ambassador Stuart, in commenting on Chiang's speech, said that it did not remove the difficulties and that General Marshall and himself would not relinquish their roles as mediators, despite their inability to avert a spreading of the civil war. Rumors that General Marshall might leave China were dispelled by Acting Secretary of State Dean

Atcheson in Washington who emphasized that Marshall had no intention of quitting the mission and underlined the United State policy of maintaining Marines in China. In Nanking the Communists rejected the Generalissimo's plan for conviction of the Assembly because they had not been consulted and said his aim to put down rebellion was tantamount to saying he wanted war. Communist criticism was directed at General Marshall in radio and newspaper comments which placed on him part of the blame for the failure to end hostilities and charged him with abetting the Kuomintang "reactionaries" by countenancing lend-lease aid to the Nanking Government. The Communist party organ, *Emancipation Daily News*, then issued a call for all Communist forces and civilians living in Communist-controlled areas to mobilize all forces to shatter Chiang Kai-shek's offensive.

The state of "no peace, no war" continued as fighting flared intermittently and the American mission sought to bring peace. General Chou deplored United States aid to the Nationalists and promised an appeal to the United Nations if the United States did not alter its policy. The announcement by Minister of Information Peng Hsueh-pei that "some progress" was made in discussions between General Marshall and Chiang for ending the civil war accompanied reports that the Nationalists had captured Chengteh, capital of Jehol while the Communists took Tatung, in northern Shansi after a twenty-five day siege.

The sale of about 1,500,000 tons of movable equipment, with an original value of $800,000,000, was made by the United States to China for the equivalent of about $175,000,000. Two-thirds of the sale total represented cancellation of the United States debt, built up during the war, to China. Negotiated by Premier T.V. Soong and Thomas B. McCabe, U.S. Foreign Liquidation Commissioner, on August 31, the sale included trucks, ships, road-building machines, steel and electrical goods, motors, railway equipment, and prefabricated houses located in China and on Okinawa, Guam, Saipan, Tinian, and other islands. No aircraft, weapons, ammunition, or any non-demilitarized combat material were involved in the title of property to China. While General Chou condemned the sale as encouragement of the Kuomintang "war policy," Howard C. Petersen, assistant Secretary of War, said it "will relieve the Army and the United States taxpayers of heavy expenditures" involved in the care and handling of the property.

Hostilities extended into September with further deterioration of peace negotiations. Frequent mention was made by both sides for an end to the war, but neither could offer a basis acceptable to the other. Nationalist forces successfully moved into Manchuria toward Harbin and drove a wedge between Yenan and Kalgan, the Communist stronghold cities. A walkout from the peace parleys by General Chou followed the Nationalist capture of Huayin, an important Communist base. Calling United States participation "neither fair nor impartial," he said appeal would be made to the United Nations to assume the role of mediator. On October, the Communists issued a communique notifying the Nationalists that a continuation of the advance on Kalgan would be interpreted as "public announcement of a total national split." The Government did not abate their offensive, but offered the Communists a series of "maximum concessions." In the projected State Council of the new interim government that was to have supreme authority, the Communists had demanded fourteen seats themselves and the Democratic League which would give them a one-third veto power. The Nationalists offered thirteen seats, which did not quite make up a third of the anticipated forty seats. Secondly, the Nationalists proposed that the Communist forces be immediately incorporated into the Nationalist Army. The concessions were closed with the offer of immediate cessation of hostilities if the Communists agreed to the above proposals. Communist reaction coincided with their established policy of first halting the war, then making political and military agreements.

A ten-day truce offer made on October 7 by General Marshall and Ambassador Stuart was rejected by General Chou on the grounds that the Nationalists did not cease their drive on Kalgan and thus displayed no good intentions. Although Chiang accepted the truce, Chou claimed that the brief interlude would only serve to give Chiang time to reinforce his assault on Kalgan and strengthen his defense of Paoting, capital of Hopei Province, the object of a Communist drive aimed at diverting Nationalist forces from Kalgan.

Kalgan fell to the Nationalists on October 11, one day after Chiang Kia-shek's three-year presidential term had been extended by the Kuomintang and national conscription had been ordered resumed by the Government.

The apparent stalemate in negotiation activities was broken by Chiang on October 16 after conferences with General Marshall and Ambassador Stuart. In concrete proposals that called for a reopening of peace talks, he asked for a meeting of the Committee of Three under the chairmanship of General Marshall to plan military reorganization and a meeting of the Committee of Five under the chairmanship of Ambassador Stuart to discuss the formation of the new government. If the Communists accepted the following eight points as an understanding upon which discussions would be based, the Generalissimo promised to issue a "cease fire" order.

1. Restoration of communications to be immediately resumed in accordance with the agreement tentatively reached by the Committee of Three last June.
2. The method for settling disagreements among team members of the Executive Headquarters and commissioners of the Executive Headquarters to be in accordance with the agreements tentatively reached by the Committee of Three last June. (This agreement provided that American members of the commissions and field teams decided where teams would go and submitted independent reports.)
3. The tentative agreement reached last June for the redistribution of troops in Manchuria to be carried out according to a fixed schedule without delay;
4. Government troops and Communist troops in North China and Central China to continue in occupation of localities now under their control until agreement by the Committee of Three is reached for the redistribution, reorganization, and demobilization of the troops, Government and Communist alike, and for the unification of the armed forces in China;
5. Whatever understanding is reached by the five-man committee headed by Dr. Stuart, it is to be confirmed by the steering committee of the PCC (Political Consultation Conference) without delay;
6. Questions of local government, excluding Manchuria, to be settled by the newly organized State Council;
7. The Constitutional Draft Committee (of the PCC) to be convened immediately and the agreed draft to be submitted to the National Assembly through the National Government as a basis for its action;
8. Concurrent with the proclamation of the cessation of hostilities, which is to be effected immediately following the agreement of the Communist party to the foregoing procedure, that party is to announce its intention of participating in the National Assembly by publishing its list of delegates thereto.

Within four days General Chou and many non-partisans agreed to meet in Nanking with Kuomintang for peace discussions. The Communists, however did not alter their attitude toward American participation in China, for on October 24 they

radioed an appeal to the United Nation General Assembly to halt United States and to the Chinese Government and to "investigate American infringement of Chinese territorial integrity and security." Among other charges they accused the United States with building bases in China, giving arms to the Nationalists after the surrender of Japan, and attacking Communist-held territories. At the same time the Communist scored a decisive victory in the capture of Yulin, 100 miles north of Yenan along China's northwest frontier.

The preliminary discussions at Nanking, strongly supported by the third parties of the Democratic League and the Youth movement, appeared to put little restraint on military activity for fighting continued in southern Manchuria as the Nationalists captured Antung, opposite Russian-held northern Korea, and pushed their attack to the Communist base of Chefoo. As negotiations lapsed again, the Nationalists sent a two-pronged attack down both sides of the Liaoning Peninsula in Manchuria toward Dairen and made several amphibious landings near Chefoo on the Shantung Peninsula. At the same time, the Communists rejected a plan of the third-party mediators which would allot them only three provincial garrison areas in northern Manchuria.

A five-year treaty of "friendship, commerce, and navigation" between the United States and China was signed in Nanking on November 4, placing China on equal basis with the United States. The United States Department of State stressed the fact that no political significance was attached to the pact nor did it intend to strengthen Chiang's Government in its strife with the Communists. Conversations toward the negotiations of the pact were begun before the surrender of Japan and the result gives recognition to China as a nation among the major powers of the world. Upon its ratification by the United States Senate and the Legislative Yuan of China, the pact will supersede the existing provisions of nine treaties that were concluded by the two nations between 1844 and 1928, but will not disturb the treaty of 1943, in which the United States relinquished her extraterritorial rights in China.

The outstanding provisions of the treaty included equal, reciprocal, and most-favored-nation treatment of the nationals, commerce, and corporations of each country within the other, free of discrimination or confiscation without compensation. Citizens, corporations, and associations of one country are permitted to reside, travel, and carry on trade in all parts of the other country, within the limits of existing immigration provisions. The right to carry on commercial, manufacturing, processing, scientific, educational, religious, and philanthropic activities is guaranteed so long as they do not conflict with the other country's laws. Also, the nationals of one country can acquire, erect, or lease buildings and lease lands for their activities in the other country. Finally, each country grants to the other the same rights to explore and develop mineral deposits as it gives a third nation.

In preparation for the meeting of the National Assembly, which was scheduled to convene at Nanking on November 12, Chiang ordered all his troops on November 8 to cease fire as of November 11, "except as may be necessary to defend their present positions." The order was issued to induce the Communists and other minority parties to participate in the Assembly, but both the Communists and the Democratic League rejected the overture. The Communists claimed that the stipulation concerning the defense of "present positions" might serve as a pretext for military operations and later added that the convening of the National Assembly as scheduled would signal a complete national split. For several months the Communists had based their rejection of the Assembly meeting on the grounds that the Kuomintang violated the January truce agreement that called for a consultation of all parties to determine the opening of the Assembly.

After a three-day delay, the Assembly opened on November 15 with the Communists, the Democratic League and other third parties absent. The meeting was originally planned to convene before 2,050 representative delegates, but actually mustered 1,470, of which 85 percent were Kuomintang representatives. General Chou's assertion that the unilateral summoning of delegates marked the end of peace negotiations sent retail prices soaring to new inflationary levels as fear of an all-out civil war pushed civilians to frantically buying and hoarding food.

On November 20, the day after General Chou left Nanking for Yenan and peace hopes dimmed, all truce teams were ordered withdrawn from Manchuria. The Communists qualified their departure from Nanking with the statement that negotiations could be renewed if a new inter-party conference were created, a new coalition Government organized and a new National Assembly convened. At the same time the Communists launched a counter-offensive in the Shantung Peninsula, capturing Pingtu and Changi.

The Assembly was offered the draft of the new Constitution on November 28 by Chiang who urged speedy adoption and said, "This presentation marks the end of responsibility of the National Government and the beginning of the Government by the people. Now that the Assembly has taken over, I have no more political ambition." Much of the Generalissimo's speech was devoted to explanations for the presentation of the new draft, rather than the Constitution drawn up in 1936. The new Constitution placed more limitations on the power of the President and modified many of the ideals of Dr. Sun Yat-sen, who inspired the original 1936 draft. In Dr. Sun's concept, the five branches (Yuan) of the Government—Executive, Legislative, Judicial, Control, and Examination—operated under the coordination of the President who enjoyed extensive powers. In the new Constitution, the five Yuan were retained in name, but a system of circumscribed executive responsibility to a popularly-elected Legislative Yuan was substituted for the five Yuan. The modifications changed the Control Yuan into an upper house, the Examination Yuan into a civil service commission, and the Judicial Yuan into a Supreme Court.

During the Assembly debates, in which several extreme right-wing members advocated a return to the old Constitution, the Communists announced from Yenan that peace talks were impossible unless the Government dismissed the unilateral Assembly and withdrew its troops to the positions held on January 13. On December 7 the Communists refused to permit United States Consul General Edmund O. Clubb to take up his post in Communist-held Harbin "because of the present policy of the United States which provided assistance for Chiang to fight a civil war."

President Truman reaffirmed United States policy with respect to China on December 18, promising continued United States aid in assisting the Chinese people to "peace and economic recovery." Reminding China that the civil war threatened world peace and must be ended, the President

reiterated the United States recognition of the National Government. During his statement, which was essentially a recapitulation and defense of the United States attitude on the question of the Chinese civil war, the President said that the armed strength of the United States in China had been reduced from a peak total of 113,000 men in the fall of 1945 to less than 12,000. The seriousness of the problem, he said, justified the presence of General Marshall in China, "even though active negotiations have been broken off by the Communist party." Increasing the base of the National Government to make it representative of the Chinese people will further China's progress toward a united and democratic nation, he said.

The President's statement was issued a few hours after a proposal by two United States Senators, James E. Murray of Montana and Ralph E. Flanders of Vermont, that the Chinese situation be taken out of the hands of the United States as mediator and submitted to a conference of the United States, Great Britain, and the Soviet Union, within the framework of the United Nations and with General Marshall as chairman. When the conference had completed its work, the Senators said, the three powers "should declare themselves out of Chinese politics." American supplies had been identified in the eyes of the Chinese as a contribution towards the civil war, the Senators commented, and was giving rise to anti-American feeling in China.

On December 25 the National Assembly approved China's new Constitution, based on the principles agreed upon early in the year by the Chungking Political Consultation Conference of all parties. The existing Government of the Kuomintang was instructed to enact regulations for elections and eliminate all laws conflicting with the new Constitution within three months.

A Communist spokesman asserted that the Constitution would not be recognized by his party since, even in its original form, many details had not been agreed upon between the Communists and the Kuomintang. In the plans of the Assembly the Kuomintang would retain power until a new President was elected, but preliminary reorganization would take place with the leaders of the Young China Party, the Social Democratic Party, and independents joining in an interim Government.

In its final form, containing 175 articles, the Constitution provided for a President and Cabinet and called for the election of a Legislative Yuan (lawmaking body), a Control Yuan (Upper House) and a National Assembly, which will be named every six years and will elect the President and Vice President. The President is to be elected for a six-year term and is eligible for one additional term. He is empowered to appoint the head of the Cabinet, with consent of the Legislative Yuan.

Membership in the Legislative Yuan is to be based mainly on professions and geographical distributions. It will exercise restricted control over the Cabinet and, by a two-thirds majority, can force the Cabinet to comply with its desires. Election to the Control Yuan is to be made by Provincial Assemblies.

Providing for universal suffrage and secret ballot, the Constitution guaranteed equality of all persons, racial groups, sexes, or individuals regardless of party affiliations. "As precribed by law," women will be allotted a definite number of seats in the National Assembly and Legislative Yuan. The Constitution prescribed normal civil liberties, but contained a proviso restricting freedom of rights in time of crisis.

The Young China and Social Democratic parties were formally invited to join the Government on December 30. On the following day President Chiang Kai-shek announced that he would continue to seek settlement through political means with the Communists.

Greater distribution of UNRRA supplies to Communist-controlled areas was announced by UNRRA officials late in December. Since Communist Zones had received only 2.76 percent of the tonnage of shipments distributed up to November 30, a special branch was created to allocate supplies worth $75,000,000 to Communist areas by June 30, 1947, the termination date of UNRRA in China. Initial distribution of 600,000 pounds of clothing was scheduled to be dropped into Communist areas by United States Marine Corps planes.

Economic Conditions. China's transition from war to peace proved doubly difficult in the face of rising taxes and runaway inflation. Premier T. V. Soong, in his report to the executive committee of the Kuomintang, declared that China was facing an economic emergency "no less serious than the war itself." and that the prospects for early large-scale reconstruction were extremely distant.

The most destructive factor was inflation caused by a lopsided Government budget with steadily rising military expenditures, disrupted communications, slow resumption of foreign trade, and little production. In the first four months of 1946 the Government spent six times its revenue, 80 percent of it for the army. In many areas the civil war activities prevented farming which ordinarily would alleviate some starvation. By September, less than 50 percent of China's factories were operating.

The effect was to make wholesale prices soar to four thousand times the level of prewar prices and increase the volume of currency in circulation to 1,000,000,000,000 Chinese dollars, one thousand times the 1937 figure. The United States dollar on the open market was fixed at 2,200 to 1, but brought more than 4,000 to 1 on the black market. Since the end of the war the price of rice in Shanghai more than quintupled. In mid-January the price of rice stood at 9,850 Chinese dollars per 172 pounds; by May the price rose to 68,000 Chinese dollars, then was pegged at 50,000 Chinese dollars by the price control orders of the Shanghai municipal authorities. Following is the cost-of-living index for Shanghai workers:

Year and Month	*(1936–100)*
1945: December	94,507
1946: February	184,573
March	275,422
April	269,430
May	409,533

In August the official rate of the American dollar was increased to 3,350 to bring it into better relation with its actual buying power in China. The effect of the decree reduced China's demands one-third on the products of the rest of the world, with an equal effect on China's exports. The first signs were salutary; imports doubled in price while domestic prices rose about 10 percent, then steadied. As the rising prices of imports caused some discussion about a revival of China's own industries, Foreign Minister Wang Shih-chieh stressed the nation's eagerness to attract foreign capital and elaborated on the "Open Door" policy which would grant equal opportunities on a reciprocal basis to all nations without discrimination. However, by December it appeared that the adjustment in the exchange rate had failed. In September exports were approximately 25 percent of imports,

but dropped to about 9 percent in October. The initial advantage of the adjustment was gradually offset by a rise in domestic prices. In two of China's leading export items, bristles and tung oil, prices rose 65 percent by the end of September. The Government attempted to cope with this problem on November 17 by imposing a system of quotas on all imports. This effort was met pessimistically by Shanghai businessmen who estimated that imports would be reduced little by the measure since large-scale smuggling would bring in over-the-quota desired items.

Production. In 1945 the estimated output from China proper of cleaned rice was 39,500,000 metric tons, wheat 18,865,000 metric tons. During prewar years, China was the world's leading producer of rice, soybeans, tea, kaoliang, sweet potatoes, millet, and vegetable oils; it ranked second in the output of raw silk and wheat; third in cotton, and was an important producer of corn, tobacco, fruits, vegetables, and cane sugar, as well as being the chief exporter of eggs and tung oil. Wool and mohair are important products.

The principal mineral products of China include coal, antimony, tin, tungsten ore, white alum, arsenic, coke, copper ore, gold, gypsum, iron ore, pig iron, lead ore crude petroleum, potash, quicksilver, rock and refined salt.

China's rapidly expanding manufacturing industry was disrupted by the war with Japan which started in 1937, but there was a considerable transfer of plants to the free provinces in the west. On June 30, 1944, Free China had a total of 4,346 factories registered with the Ministry of Economic Affairs.

Foreign Trade. In 1943, exclusive of bullion, imports were valued at CN$3,314,324,000; exports, CN$164,459,000. The value of the Chinese National dollar (CN$) was set at US$0.05 on July 10, 1942. Of the total imports, the United States sent commodities valued at CN$590,806,000, Great Britain CN$198,577,000, British India CN$77,374,000. Of the exports, the U.S.S.R. took commodities valued at CN$58,705,000, United States CN$37,007,000, and British India CN$8,403,000.

Imports in 1943 included dyes, pigments, paints, varnishes, books, maps, paper, wood pulp, cotton piece goods, chemicals, raw cotton, cotton yarn and thread, metals and ores, and armaments. The principal exports included animals and animal products, oils, wax, textile fibers, spices, fuel, stone, tea, raw silk, leather, chemicals, metals, minerals, piece goods, paper, cereals, and beans.

Transportation. Highways traverse China in all directions and internal trade is carried on partly over them and in part over the many canals and rivers. In 1943 there were 78,580 miles of roads in all China. Before the war there were 12,500 miles of railway. Telegraph lines in 1943 had a length of 59,275 miles. In the same year telephone lines had a length of 41,384 miles. A network of 4,500 miles of navigable inland waterways and a new canal linking Shanghai, Peiping, and Nanking are included in a 5-year reconstruction plan announced, on Dec. 16, 1945, by the Chinese National Reconstruction Plan.

JOSEPH P. BLANK.

CHRISTIAN SCIENCE. A system of metaphysical or spiritual healing set forth by Mary Baker Eddy in her textbook of the movement, *Science and Health with Key to the Scriptures*, first published in 1875. The first Christian Science Church was established by Mrs. Eddy in Boston in 1879. Ten years later it was dissolved, and at the request of Mrs. Eddy, the present Church was organized in 1892, and named The First Church of Christ, Scientist. It is also known as The Mother Church. The total number of recognized branches of The Mother Church is more than 2,870. There are also 73 college and university organizations.

The affairs of The Mother Church are administered by The Christian Science Board of Directors under the Church Manual by Mary Baker Eddy. The Board of Lectureship of The Mother Church is engaged in delivering free lectures on Christian Science.

The Christian Science Publishing Society, whose affairs are administered by a Board of Trustees, also under the Church Manual, issues the international daily newspaper of the organization, *The Christian Science Monitor*. Other periodicals include: *The Christian Science Journal; Christian Science Sentinel; Christian Science Quarterly;* and five editions of *The Herald of Christian Science*, in the German, French, Dutch, Spanish, and Scandinavian languages, each with the English translation opposite; and also an edition of *The Herald of Christian Science* in Braille.

Luther P. Cudworth is President of The Mother Church for the year 1946–47. Headquarters are at 107 Falmouth Street, Boston 15, Massachusetts.

CHRISTMAS ISLAND. The name of two separate islands. (1) An island in the Indian Ocean, southwest of Java, a dependency of Straits settlements (see BRITISH MALAYA). Area, 60 square miles. Population (1941 estimate), 1,431. The island was occupied by the Japanese in 1942. In December, 1946, a mutiny trial of 9 sepoys said to have shot British officers at the time of the first Japanese invasion threat was begun in Singapore. (2) The largest atoll in the Pacific, over 100 miles in circumference, just north of the Equator and lying south of the Hawaiian Islands. It is included in the British colony of the Gilbert and Ellice Islands and is leased to the Central Pacific Coconut Plantations, Ltd., for a period of 87 years from 1914. Population in 1940, 11.

CIVIL AERONAUTICS ADMINISTRATION (CAA). A branch of the U.S. Department of Commerce which encourages and fosters the development of civil aeronautics and air commerce; encourages the establishment of civil airways, landing areas, and other air navigation aids and facilities; designates Federal airways and acquires, establishes, operates, and maintains air navigation facilities along such civil airways and at landing areas; makes provision for the control and protection of air traffic moving in air commerce; undertakes or supervises technical developmental work in the field of aeronautics; plans for the development of aeronautical facilities; and maintains and operates the Washington National Airport. The Administrator also enforces the civil air regulations (excepting the functions of the Civil Aeronautics Board, q.v.).

The locations for the construction or improvement of airports under this program are selected on the basis of their importance to national defense and to future civil aviation. The Administration advises the War and Navy Departments on the disposition of surplus war airports and State and local units of government on airport site selection, planning, development, and maintenance.

The Federal Airways System, which has been extended throughout Alaska, is being further expanded and improved to provide the type of dependable communications service and air naviga-

tion facilities required for the successful conduct of military operations in that area. Installations in Hawaii and the Pacific Islands, as well as in the Caribbean area, are now proving their military value. The Federal Airways System now comprises a network of more than 43,211 miles of "highways of the air."

Development work is proceeding in the fields of very high frequency communication and directional guidance facilities; monitoring equipment; flutter and vibration of aircraft components; engine nacelle fires; airport design and construction; soil testing and stabilization; airport lighting; obstruction marking by radio; traffic control; instrument landing systems; and aeronautical charts.

Administrator: Theodore Paul Wright.

CIVIL AERONAUTICS AUTHORITY. A division of the U.S. Department of Commerce. Its functions are discharged by the Civil Aeronautics Administration and the Civil Aeronautics Board (qq.v.).

CIVIL AERONAUTICS BOARD (CAB). A five-man nonpartisan board organized independently within the U.S. Department of Commerce. It prescribes safety standards and regulations and has the power to suspend and revoke safety certificates, regulates air carriers, makes accident rulings and recommendations, and investigates accidents. Chairman in 1946: James M. Landis.

CIVILIAN PRODUCTION ADMINISTRATION was set up (by Executive Order 9638, October 4, 1945, effective November 3, 1945), succeeding the War Production Board. As the government agency charged with assisting the reconversion of American industry from a forced-draft, wartime productive machine to a stable, high-level peacetime economy, CPA began with a staff largely carried over from WPB and a philosophy that called for a minimum of government control and strong reliance on the cooperation of the business community.

With the war recently ended, factories were shutting down, dismantling their special-purpose machinery and rearranging production lines for the switch from weapons to civilian goods. In addition to the millions of war workers demobilized during this process, other millions were beginning to flow into the peacetime labor market from the armed forces.

The nation was faced with accumulated shortages—of homes, of automobiles, of clothes, of all kinds of products and even of the materials of which they were made.

To provide jobs for those millions of persons and to fill those accumulated needs, the CPA's job divided into two parts: revitalizing dormant civilian industries and assisting those which had converted to war work in setting up production lines for consumer goods. It was decided to follow the policy set by WPB of removing restricting controls as rapidly as possible, allowing business to operate under its own initiative with a minimum of government restrictions.

CPA's specific functions were to:

1. Expand production of materials in short supply;
2. Limit the manufacture of products for which the materials or facilities are insufficient;
3. Control the accumulation of inventories so as to avoid speculative hoarding and unbalanced distribution which would curtail total production;
4. Grant priority assistance to break bottlenecks which would impede the reconversion process;
5. Facilitate the fulfillment of relief and other essential export programs; and
6. Allocate scarce materials or facilities necessary for the production of low-priced items essential to the continued success of the stabilization program of the Federal Government.

To implement these objectives, CPA used priorities, allocations, conservation and limitation orders, directives, orders channeling materials into the most essential uses, and inventory controls.

There were many degrees of control of basic materials. All supplies of tin and lead, for example, were allocated by the CPA for critical and essential uses. Newsprint, on the other hand, was controlled only to the extent that users' inventories were limited to the minimum amounts needed for their operations. Inventory controls were retained from wartime to prevent hoarding of scarce goods which would exaggerate shortages.

Others, like steel, iron, rubber, chemicals, leather, fibers, and lumber, were controlled to varying degrees. In all cases where supplies fell seriously short of essential requirements, the most urgent needs were given first call.

The agency's "bottleneck breaking" priorities regulation facilitated the reconversion of the national economy, by helping new and small businesses and by giving special assistance for the production of critical reconversion products. Under this regulation, PR-28, a new producer or a small businessman who was not able to locate and purchase necessary equipment and materials and who was suffering real hardship could apply to CPA, and receive a priority that would enable him to purchase essential materials or equipment.

A list of critical products and materials needed throughout the economy and in short supply was maintained, so that manufacturers of items on the list could get priorities assistance for equipment or materials the lack of which was delaying production.

From the start CPA policy was to use its priorities and allocations tools sparingly, in the belief that wherever decontrol was possible, it would make for the greatest efficiency of operation and stimulate production to a higher degree. The agency worked closely with industry through the meetings of industry advisory committees and maintained liaison with industry through CPA executives.

Industries were kept informed of demand for their products and prospective supplies of materials and components so that realistic production schedules could be set up. Programs of critical importance to the nation were given special assistance by the means listed above.

Much of the year's activity centered around the following major programs and problems.

Housing. The War Production Board, faced with some estimates that six or seven million would be unemployed by Christmas, had lifted late in 1945 its order, L-41, which restricted construction during the war. This was done to spur the reconversion of a basic industry which seemed in need of all possible assistance if it were to provide jobs and undertake the tremendous task of civilian construction which had been delayed.

The construction industry recovered much more rapidly than expected; so fast that it outran production of building materials. There was not enough lumber, millwork, radiation, and other items. The lifting of L-41 let loose a flood of building, but home building lagged, partially because of the weather. Materials flowed into commercial and industrial jobs. Construction of low and medium-priced homes did not increase as fast as other types of building.

With the release of large numbers of men from the services, the already acute housing situation became a national emergency. The Civilian Production Administration set out to stimulate the produc-

tion of building materials and to channel them into homes for veterans.

To increase the production of tight building materials, CPA gave producers priorities for materials and equipment, worked with the United States Employment Service to recruit labor and direct workers to these plants, conferred with the Office of Price Administration concerning the adjustment of price ceilings to stimulate output, issued channeling orders and directives for pig iron and steel to building materials producers, launched a nationwide scrap drive including ship-breaking operations. Some regional officials even helped producers shop not only for production materials but for hard-to-get food items to feed employees.

Building materials production responded quickly and steadily throughout the year to the increasing volume and urgency of demand, to government measures listed above, and after mid-year to the premium payment plans and subsidies paid by other government agencies. The rates of increase on some of these production programs for building materials were comparable to performance on the military programs of high urgency during the war. In the year following V-J Day, monthly lumber production jumped 30 percent, bath tubs 285 percent, sinks 240 percent, cast iron radiation 171 percent, cast iron soil pipe 140 percent, brick 125 percent, and warm air furnaces 102 percent. Many others were being produced at increased monthly rates of 20, 50, 60, 70 or 80 percent.

The other course of action taken by the Civilian Production Administration was to channel materials into veterans' homes. The first action was taken along this line in December 1945, when CPA announced its program to give builders of homes for veterans HH priority ratings on some of the scarcest building materials. The builder was required to give veterans first option on sale or rental, and the units had to sell or rent within established price limits.

The same priorities regulation, PR-33, required building materials dealers to set aside certain percentages of their receipts of scarce materials each month to fill HH orders only. This helped somewhat, but the quantities of materials reaching dealers were not large enough for the parts "set-aside" to go far in alleviating the shortage of materials for veterans' homes. In March the issuance of the HH ratings was transferred to the Housing Expediter and handled through the Federal Housing Agency.

The next step in broadening the flow of materials to housing was to minimize competition for scarce building materials by eliminating as much non-housing construction as possible. On March 26, the Veterans' Housing Program Order 1 was issued. It required that all non-housing construction projects, above certain small amounts allowed for repairs, be authorized by CPA. Therefore 10 regional and 71 district offices were organized under the CPA Construction Bureau, in many cases staffed by the personnel of the old War Production Board field offices.

The only projects approved were those considered essential and non-deferrable from the point of view of the public interest, those which did not require the same materials as veterans' housing and therefore would not conflict with the housing program, and those where unusual hardship to individuals would result through no fault of their own if not permitted to proceed. The application of the criteria was progressively more restrictive, until in September the rate of authorizations was brought down to about 35 million dollars a week for the entire country.

The magnitude of the increase in construction activity is illustrated by the fact that employment in the construction trades doubled in the year, rising from one to two million.

Clothing, Textiles. Started in 1945, the low-cost clothing program was given added impetus in 1946 because of the needs of returning servicemen. Fabrics were allocated to manufacturers making clothing in specified low price ranges. However, with the ending of price controls, the program became unworkable, and was abandoned in November.

The famous order L-85 which restricted use of materials and limited changes in design of women's and children's clothing in order to conserve materials, was continued through most of the year. After several relaxing amendments, L-85 was lifted in October. Most other textile controls which channeled fabrics and components into the most essential clothing, industrial, and agricultural uses were revoked in November and December.

Exports. In view of the large export market and the fact that domestic demands for many things were far from being met, the Civilian Production Administration limited exports of scarce goods. In cooperation with the Department of State, the Office of International Trade, and other agencies, CPA reviewed foreign orders for scarce products and materials. Where the particular item was in short supply within the United States, export generally was limited to the minimum relief and rehabilitation commitments of the United States Government.

Industrial Output. Industrial production reached peacetime peaks in the late summer, despite earlier serious work stoppages. At the same time, civilian employment rose 11 percent, increasing from 51,600,000 in October 1945 to 57,400,000 in October 1946, a peacetime peak, as the country provided jobs for its demobilized soldiers and war workers.

After V-J Day, industrial production on the whole had fallen to about the prewar level. The increase since then has been principally in durable goods, which rose 30 percent during the year, while non-durable production held at about the same level throughout the year. In October the over-all level was about 25 percent below the all-time peak achieved at the height of war production in 1943, but still 12 percent above the average for the peak prewar year 1941.

October production of basic materials like coal, oil, steel, paper, and textiles was about the same as in 1943, but the total of industrial activity was less because military goods went through more plants and processes per pound of raw materials.

On December 5 President Truman accepted the resignation of CPA Administrator John D. Small, saying: "Now for several months we have been near to full-time employment, and we have reached a peak of production never before attained in time of peace. Your work, as originally assigned, therefore has been virtually complete."

To wind up the work, the President created the Office of Temporary Controls. See TEMPORARY CONTROLS, OFFICE OF.

JOHN D. SMALL.

CIVIL SERVICE, U.S. The year 1946 was a period of transition in Federal personnel administration. Special wartime regulations which were adopted in March 1942 to speed up the recruitment, examining and placement of workers in Federal agencies on a temporary basis were abandoned, and by the end of the year the civil-service system was well on the way toward return to a permanent, peacetime basis.

During the war, most of the peacetime Civil Service Rules were superseded by War Service Regulations, which were designed: (a) to speed up the processes by which workers were placed in jobs subject to the competitive requirements of the Civil Service Act of 1883 (merit-system positions); and (b) to preclude the filling of such jobs on a permanent basis at a time when millions of men and women were in the armed forces or in war industry, and were therefore unable to compete for Government employment. Appointments under these regulations were on a "war service" basis, "for not to exceed the duration of the war and 6 months."

On February 4, 1946, although the war had not yet been legally terminated, the President signed an Executive order directing the U.S. Civil Service Commission to resume the regular, peacetime practice of announcing and holding examinations for filling positions on a probational (permanent) basis, and authorizing the adoption of regulations to govern personnel transactions during the period that the Civil Service Rules were being revised. The order also directed the Commission to submit to the President recommendations for a revision of the rules. The release of men and women from the armed forces and from war industry had progressed to such a degree that the procedures adopted in wartime were no longer necessary.

Under authority of the February 4 order, the Commission issued Temporary Civil Service Regulations, which became effective March 7, superseding the War Service Regulations; resumed the practice of announcing civil-service examinations leading to permanent appointment; and began a program of displacement of war-service and other temporary employees. Recommendations for a revision of the Civil Service Rules have been submitted to the President. The rules are promulgated by the President to carry out the purposes of the Civil Service Act, and are administered by the Civil Service Commission, the central personnel agency of the Government. Approval of the revised rules will mark the full conversion of the merit system to a peacetime basis so far as regulations and procedures are concerned.

The first of the peacetime type of examinations were announced in March. Numerous others have been announced subsequently. Nation-wide examinations have been announced by the Commission's central office, Washington, D.C., to fill positions in such fields as physics, chemistry, engineering, drafting, agriculture, geology, geophysics, accounting and auditing, library science, forestry, dietetics, and stenography. Other examinations have been announced by the Commission's 14 regional offices, and by boards of examiners under the jurisdiction of the regional offices, to fill positions within the respective regions or in particular establishments, such as War and Navy Department installations.

After examinations are held, registers of eligibles are established. Eligibles are certified from these registers to fill vacancies in positions of the kind for which the examinations were held, and to replace employees in such positions who do not have permanent tenure.

When the War Service Regulations were abandoned, the Commission had almost no lists for regular civil-service appointments. It was necessary to start at the beginning in establishing such lists. It will take the Commission many months to give examinations and establish lists of eligibles for all the hundreds of types of positions that exist in the Federal service. Vacancies in positions in each of the various occupational groups will be filled on a temporary basis, directly by the Government agencies in which they exist, until it is possible to fill them on a permanent basis from registers of eligibles established in accordance with the Temporary Civil Service Regulations or (after these have been superseded) the Civil Service Rules. A register may be established as the result of an open competitive examination, or it may consist solely of (a) the names of disabled veterans who qualified in an examination open to them only and (b) the names of persons who lost opportunity for appointment from a previous register by reason of service in the armed forces.

Veterans receive preference in appointments, whether temporary or permanent. In making temporary appointments, pending the establishment of registers by the Civil Service Commission, Federal agencies are required to adhere to regulations issued by the Commission which provide that preference shall be given, first, to qualified persons entitled to 10-point preference under the Veterans' Preference Act of 1944; second, to qualified persons entitled to 5-point preference under that Act; and, third, to qualified former Federal employees who are not entitled to veteran preference. In examinations for permanent appointment, 5 or 10 points are added to the earned ratings of persons entitled to veteran preference. Non-disabled veterans receive 5-point preference. Disabled veterans, the widows of veterans, and the wives of disabled veterans receive 10-point preference.

The Federal Employees Pay Act of 1946, effective July 1, 1946, brought about a 14-percent increase in the base pay of most Government workers whose positions are subject to the Classification Act of 1923. (The largest groups of employees whose positions are not subject to the Classification Act are those in the Postal Service and those in the mechanical trades and crafts.) The pay act contains provisions for absorbing a major part of the cost of pay increases granted to employees in the executive branch by requiring gradual reductions in the number of such employees during the period from July 1946 to July 1947.

On November 1, 1946, the latest date for which statistics are available as this article is written (December 1946), the number of Federal employees was 1,335,100 less than at the wartime peak shortly before V-J Day. This was a 35 percent cut in civilian workers in the United States and elsewhere since June 30, 1945, when 3,770,000 persons were employed. On November 1, 1946, the total was 2,434,900.

Most of the reduction during the 16-month period occurred in the War Department, the largest Federal agency, which cut its rolls 63 percent—from 1,881,000 to 700,600. A 49-percent drop in the Navy Department lowered its civilian workers from 753,000 to 383,600.

On the other hand, military demobilization resulted in a rapid growth in the Veterans' Administration. This agency increased from 65,000 to 209,500 during the 16-month period. The Post Office Department, second largest agency, also expanded. Postal employees increased to 495,600—a gain of 116,800, or 31 percent.

The other regular and emergency agencies combined employed 645,600 persons—about one-fourth of all Federal civilian employees—at the beginning of November 1946.

Since V-J Day, the number of employees separated from the rolls in reduction-in-force programs has been large, but by November 1946 decreases due to reductions in force had exceeded the number of resignations in only one month. (A "reduction in force" takes place whenever one or more

Federal employees are involuntarily separated from the rolls of an agency in order to reduce personnel for such reasons as decrease in work, lack of funds, limitations on number of employees, reorganizations, and the necessity of making positions available for veterans and other returning employees with reemployment rights.) The order of separation in a "reduction in force" is determined by tenure of employment, veteran preference, length of service, and efficiency ratings. Active service in the armed forces of the United States is credited in determining a veteran's total length of service for "reduction-in-force" purposes.

Between September 1945 and September 1946, 25 to 45 percent of the separations each month resulted from "reductions in force." In October 1946, "reductions in force" accounted for 38,000 separations (34 percent). Resignations continued as the major type of separation, numbering 46,600 (42 percent).

The number of persons added to the rolls of Federal agencies in October 1946—74,000—was the smallest for any month since before the war. Moreover, in the same month about 111,200 employees were separated from full-time positions.

About 825,900 veterans—39 percent of Federal civilian employees—were employed in the Federal civil service in the continental United States at the end of October 1946. A year previously, 484,600 veterans—19 percent of the total number of employees—were employed. Two-thirds of the veterans in Federal agencies served in World War II. This group of veterans numbered 549,600 in October 1946—4 percent of the 13,853,000 veterans of World War II reported by the Veterans' Administration.

HARRY B. MITCHELL.

COAL. Bituminous coal's importance in the economy of the United States was driven home by a two-months miners' strike during April and May which left scars unhealed through the balance of the year in widely diversified sections of industry. A second work stoppage, lasting from November 21, 1946, to December 7, 1946, further disrupted economy.

The first strike began April 1 on failure of bituminous mine operators to reach an agreement with the United Mine Workers union on increased wages and other demands including a levy on each ton of coal mined, to establish a union-administered miners' health and welfare fund, unionization of mine foremen, and revised safety regulations. Within two weeks, steelmaking operations began to be gradually curtailed for lack of coal for production of coke. Coke is essential to the production of pig iron, base material from which most steel is made. By mid-May severe restrictions had been placed on use of electricity generated in coal-fired steam plants, throttling commerce and industry in some sections of the country. Freight shipments on coal-burning railroads were restricted to foodstuffs and vital supplies. Steel operations continued to drop, finally down to 44.5 percent of capacity. On May 13 a two-weeks truce was effected between union heads and operators but few miners returned to work and on May 20 the government took over control of the mines. The strike did not finally end, however, until May 29, when the government signed a contract with the union providing an 18½ cents per hour wage increase, a jointly administered health and welfare fund financed by a five cent levy on each ton of coal mined, and other provisions. An estimated 90,000,000 tons of coal production and 5,800,000 tons of steel output was estimated to have been lost, due to the strike.

Failure of mine owners to reach agreements with the union caused the government to remain in charge of mine operations throughout the rest of 1946. The union's head, John L. Lewis, requested negotiations with the government for further wage adjustments in November. Following inability to agree, Lewis notified the government that he would consider the union's labor contract terminated November 20, 1946. Ignoring a Federal court restraining order ordering Lewis and the union to revoke the contract termination notice, the miners struck November 21. On December 3, Lewis and the union were convicted of civil and criminal contempt of court, with the union being fined $3,500,000 and Lewis, $10,000. Pending appeal to the U.S. Supreme Court, the miners were called back to work December 7, 1946.

Principally as a result of the strikes, 1946 bituminous coal production was only 527,000,000 tons (1945: 570,000,000 tons). Anthracite coal mines, with only an eight-day work stoppage ending June 7, produced about eight percent more than in 1945, with a total of about 60,685,000 tons.

With the government operating the mines on a temporary basis in the United States, permanent socialization of mining appeared certain in most European countries. Following passage of a coal mine nationalization bill in Parliament in July, the British government expected to take ownership January 1, 1947. A coal industry nationalization bill for France was voted in June. Shortage of coal on the European continent, estimated to be 44,000,000 tons for the year starting July 1, 1946, not only restricted industrial production but left most homes with little or no heat. Lack of food for miners and slow reconstruction of railroads for distribution were major elements in holding down production in the Ruhr, major coal mining center in Western Europe. Production from the great Silesian mining region went entirely to Russia. Control of the Saar Basin mines went to France.

Beehive coke production, roused from semidormancy by heavy wartime coke demand, declined 17 percent from 1945 to 4,344,800 tons (1945: 5,213,893 tons).

CHARLES T. POST.

COAST AND GEODETIC SURVEY. A branch of the U.S. Department of Commerce. In addition to surveying and charting the coasts, it compiles tide and current tables, aeronautical charts, magnetic information, seismological and gravitational and astronomical observations. Director: Leo Otis Colbert.

COAST GUARD, U.S. The Coast Guard's two dominant peacetime functions of maintaining maritime safety and enforcing law on the navigable waters of the United States and its possessions and at sea, became paramount with the return of the Coast Guard to the Treasury Department on January 1, 1946, after it had operated as part of the Navy for four years and two months. Air Sea Rescue functions, including the operation of their accompanying navigational aids, such as medium and high frequency direction finder stations, continued until June 30, 1946, under the directional control of the Navy, as did the operation of mid-ocean weather stations.

At midyear, 1946, the eleven Coast Guard air stations, with their 195 fixed wing and 31 rotary aircraft, came once more into Coast Guard operational control. Most of the aircraft, however, continued to be Navy-owned. On September 5, 1946, the Air Sea Rescue Agency, inter-departmental group for the study of improved and standardized

rescue and search methods, headed by the Coast Guard Commandant, was renamed the Search and Rescue Agency. On the same date such ocean weather stations as remained from the extensive net maintained by the Navy during the war were transferred to the Coast Guard.

By the end of September, 1946, Coast Guard crews had been removed from all of the 352 Navy and 299 Army vessels they had manned during the war; of the 760 Coast Guard cutters of 65 feet or over which were in operation during the war only 269 remained by June 30, 1946, together with 1,395 motor lifeboats and motor boats, reduced from a peak of 7,960 on January 1, 1943. Its shore establishments such as training stations, air stations, bases, depots, lifeboat stations, resident light stations, primary radio stations, stores, academy and yard whose 1941 total of 831 units had grown to 2,237 at the peak of the war effort, had been reduced to 798 at the end of the fiscal year 1946. Many lifeboat stations were in a limited caretaker status due to personnel shortages. The number of aids to navigation including lighthouses, lightships, radiobeacons, buoys, and daymarks had increased from 31,006 to 36,879 during the war.

Military personnel, including officers, warrant officers and enlisted men which had increased from 19,090 on June 30, 1941 to 171,192 on June 30, 1945, numbered only 26,046 a year later. Recruiting stations, reduced from 29 in 1941 to 14 in 1946, enlisted 10,020 men during that fiscal year, with only one recruit training station remaining at Mayport, Florida. Membership in the non-military Coast Guard Auxiliary, an organization of owners of motorboats, yachts, aircraft and radio stations promoting safety among motorboat and yacht operators and voluntarily augmenting meager complements of under-manned lifeboat stations and patrol boats, numbered 44,963 on June 30, 1946, embracing affiliation of 13,239 boats, 33 airplanes and 7 amateur radio stations.

With wartime port security ended at the beginning of 1946, the Coast Guard continued to enforce, under the Espionage Act of 1917, its regulations, recodified on a peace time basis, governing the anchorage and movement of vessels and, on an ever diminishing scale, the loading and unloading of explosives and other dangerous cargo. At the end of the fiscal year, small details of officers remained on duty in the European and Pacific theaters of operations, and at two Army and one Navy ordnance depots on the Atlantic and Gulf coasts, supervising the reshipment and unloading of dangerous cargoes of ammunition and explosives being returned to the United States.

Emergency ship construction declined rapidly after V-J day (August 14, 1945) but by the end of the 1946 fiscal year 693 new vessels of a total of 3,210,798 gross tons had been constructed during the year and certified by the Coast Guard as meeting safety regulations. With the decline in new construction, however, came an increase in inspections incident to repairs, conversions, and the alteration of transports to passenger vessels, which more than offset it. In addition, annual inspections were made of 8,005 merchant vessels, 488 of Government vessels, 648 of boilers on Government ships and 976 of boilers in Government shore establishments. Added to this were 7,447 drydock examinations of craft under construction, repair or conversion, 2,164 re-inspections and 126 special surveys on passenger vessels not classified. Coast Guard Inspectors at manufacturing plants examined boilers, lifeboats, liferafts, line throwing guns and other safety appliances. There was a marked reduction in the number of waivers granted, involving risks in maritime safety which could well be taken to expedite war commerce, and efforts are being made to bring vessels into full compliance with the law by the time the second War Powers Act expires on March 31, 1947. The Coast Guard had laid emphasis on securing compliance with navigation laws through education and cooperation rather than upon assessing penalties, except in cases of wilful violations.

During 1946, as an evidence of returning peaceful conditions, 27,307 more motorboats were numbered than during the previous fiscal year bringing the total to 411,310. By Presidential Proclamation on December 21, 1945, the Coast Guard resumed cognizance in the interests of safer loading over the observance of the provisions of the International Load Line Convention, suspended since August 9, 1941. Merchant marine hearing units afforded prompt and fair hearings to merchant marine personnel in all important United States ports and at foreign ports located in Europe, the Philippines, China and Japan. They investigated 34,258 cases of misconduct, negligence and incompetence and as a result 1,001 officer licenses and 6,352 seaman certificates were either suspended, revoked or the holders placed on probation for definite periods.

In March, 1946, the North Atlantic Ocean Patrol was organized, its activities embracing direction over the International Ice Patrol, Greenland Patrol, Ocean Weather Patrol and such aids to navigation as the Coast Guard still maintained in Labrador, Greenland, and Newfoundland.

JOSEPH F. FARLEY.

COCOA. Probably one of the most eventful years in history was witnessed in the cocoa market in 1946, featured by rising prices and a definite shortage of cocoa beans—the basic raw material of the chocolate industry. At the close of the year, spot cocoa beans in New York were quoted at approximately 25 cents per lb.—the highest price in forty years.

Although the end of the war brought increased production in West Africa (which produced about 60 percent of the world's needs) it found the consuming world with bare shelves and a universal desire to build up vanished inventories of cocoa beans.

The situation was particularly acute in the United States where record demands encountered a stockpile that was never more than a few weeks' needs as compared with prewar years when this country carried six months to a year's supplies on hand at all times.

The shortage, which grew continually more painful for the American chocolate manufacturers as the year progressed, was best reflected in the trend of prices. For the first half of the year, the market was at 8.86¢ per lb., which was the ceiling established at the start of the war and maintained throughout and after hostilities. When the OPA lapsed late in June, prices shot up and the market was 13.86¢ bid on July 19. When the revived OPA went into effect on July 25th, the market price returned to 8.86¢. The OPA ceiling was raised to 14.95¢ effective October 2 but underlying demand was so great that there was enormous demand at 14.95¢ immediately, with virtually nothing offered at that price.

When complete decontrol eventually came, prices advanced steadily, reflecting the shortage of supplies and by the end of the year was at the forty-year high of approximately 25 cents per lb. for spot supplies.

The United States trade was particularly per-

turbed by the action of the British Government in embarking on a policy of continuation of wartime controls as a permanent measure. The trade contended that control and allocation of the all-important British Colonies' production constituted a monopolistic control of the world's principal source of this raw material of the chocolate industry. However, despite mass meetings of the trade in New York and protests to the British Government and the American State and Agriculture Departments, the British Government continued to dole out cocoa beans sparingly to the United States market as the year drew to a close.

To the American consuming public, it meant higher and higher prices for chocolate bars and other chocolate candies. It meant confusion to the American manufacturers who were forced to operate and plan ahead with raw materials on a hand-to-mouth basis.

Imports of cocoa beans into the United States for 1946 amounted to about 4,100,000 bags compared with about 4,500,000 bags for 1945. Stocks in licensed New York warehouses at the year's end were about 175,000 bags.

COFFEE. During the war period, price controls were rigidly imposed on coffee not only at the consumer level, but on the green coffee purchased from the producing countries of Latin America. The prices that could be paid to producers for various grades of coffee were frozen on December 11, 1941.

In the early days of the war these ceiling prices were satisfactory. However, both the cost of production and the cost of living advanced in the producing countries and United States ceilings on coffee became more and more objectionable to the producers. The result was international friction, ill will, and difficulty in the trade because of withholding of supplies. This was especially true of the better qualities of coffee.

After long negotiations between officials of the producing countries, the Inter-American Coffee Board, the Department of State, and other United States government agencies, a subsidy to offset the increased cost of production of coffee was approved on November 19, 1945. This subsidy, amounting to 3 cents per pound was paid by the Reconstruction Finance Corporation to coffee importers, and increased the return to coffee producers without changing the price of coffee in the United States.

During the 25-day period after June 30, 1945, when the OPA lapsed temporarily and price control was not in effect, the price of green coffee advanced about 8½ cents per pound. A few weeks after OPA was back in power this reality was recognized. The prices OPA established on August 12, 1946 were the average prices at which coffee was purchased during the non-control period—an increase of about 8½ cents per pound.

A free market having once been tasted, this expedient was not too successful. On October 17, 1946, the OPA granted a formal petition for decontrol submitted by the Industry Advisory Committee of the National Coffee Association.

The return to a free market in coffee has eliminated most of the difficulties and frictions which had developed as a result of controls on prices. The coffee industry is in a better position to serve the American people with the quality of coffee they want. The market price of coffee, moreover, leveled off at a point not significantly higher than the last increase which was granted by the OPA.

Despite wartime difficulties in price and supply, never before in history has coffee consumption in the United States reached the high levels registered during the quota year, October, 1945 to September, 1946. According to United States government figures, coffee consumption during that period amounted to 19,930,000 bags of 132 pounds each. This was an increase of 17.4 percent over the previous record, made in the quota year 1944–1945.

These figures indicate that, by latest count, the American people are consuming 19.7 pounds of coffee per capita per year, two pounds more each than they did the year before. The present total has never been equalled in any calendar year, quota year, or other twelve-month period. The United States is the greatest coffee-consuming country in the world, consumption having increased by 56 percent since 1937.

To the coffee producers of Latin America, who during 1946 supplied the United States with every bean of coffee consumed here, these increases have meant a total increased sale of more than forty million bags in the past nine years, and an increase in dollar sales volume of about 650 million dollars. These large coffee exports to the United States mean ever higher standards of living for the Latin American people, and increasing financial resources with which to buy the elements of a better life.

A healthy export trade in coffee means, in turn, increased imports from the United States. In the prewar year of 1939, with trade depressed by international difficulties, Latin American world-wide imports exceeded $800,000,000. When wartime restrictions are lifted, the possibilities of inter-American trade are limitless.

J. ROSENTHAL.

COLOMBIA. A republic of South America. Area: 439,825 square miles. Population: 9,807,000 (1943). Capital: Bogotá.

The Andes, intersected by high plateaus and deep river valleys, form the western third of the country; the remainder consists of plains watered by the Orinoco and Amazon Rivers. The climate varies with the altitude, low areas having tropical heat, plateaus temperate climate, and the high mountain regions cold to frigid temperatures.

Population. The majority of the population of Colombia is mestizo; the rest are persons of European descent (15 percent); Indians (10 percent); and Negroes (5 percent). The group of Negroes and Negro mixtures has been estimated at about 30 percent. Most of the people live in the Magdalena River valley in the mountain belt; population density is low in the coastal regions, and very low in the lowlands of the Orinoco and Amazon. Colombia's largest cities are: Bogotá, 395,000; Medellín, 198,000; and Barranquilla, 183,000.

The official language is Spanish. The predominent religion is Roman Catholic.

According to the census of 1938, 43.4 percent of the population over 10 years of age is literate. In 1943 there were 19,901 primary schools with a total enrollment of 679,273; 58,980 students were enrolled in 776 secondary schools; and 7,635 students were enrolled in 63 colleges and universities.

Government. Under the Constitution of 1886, Colombia is a centralized republic of 14 Departments, 4 Intendencias, and 6 Comisarias. It has a bicameral Congress composed of a Senate of 63 members and a Chamber of Deputies of 131 members. The congress holds two regular sessions a year; the first opens on Feb. 1 for 90 days and the second begins on July 20 and meets for 120 days. The President is elected for a 4-year term, and is aided by a Cabinet of 10 ministers. Alfonso López Pumarejo was elected President on

Aug. 7, 1942 for his second term (he previously served from 1934–38). In August, 1945, President López resigned, and Dr. Alberto Lleras Camargo, First Presidential Designate, became President to complete the term ending Aug. 7, 1946.

Events, 1946. In an election on May 5, marked by unusual serenity, Columbians voted in their first Conservative president in 16 years. Mariano Ospena Pérez, 55 year old millionaire businessman and Senator, profited by a split in the Liberal Party and captured the presidency over his two Liberal opponents, Gabriel Turbay, supported by the official Liberal Party, and Jorge Eliecer Gaitán leader of the Independent Liberal faction.

Were it not for the schism, the Liberal Party would have had no difficulty in seating its candidate. Tabulations at the end of May gave Pérez 523,523; Turbay, 401,121; and Gaitán, 332,563.

Since 1930, the Liberals had given Colombia a progressively-aimed administration. After the 1942 election which seated young Dr. Alfonso López, Colombia's relatively placid government was ruffled by rumors of scandals involving members of López' family, successive Cabinet resignations, determined co-aspirations of various Liberal Party leaders for the presidential nomination, an abortive military coup and the tendency of López to push his progressive program aggressively over all opposition. Finally, López resigned in 1945, a full year before his term expired. The Liberals selected Alberto Lleras Comargo, young Minister of Government, to rule the interim government and then fell to bickering over a new candidate, while the Conservatives happily viewed their comeback possibilities. During the campaign, Ospina Pérez spent his time wooing the dissatisfied Liberals who felt that Gaitán's program was too radical and opposed Turbay (Former Ambassador to Washington) because he was of Turkish descent.

The new President, comfortable in a record of conservative politics, encountered strong opposition from the Liberal majority in Congress, who decided to refuse Government posts and were intent on rejecting all Conservative-inspired measures.

In a post-election statement Pérez offered his hand to the opposition and said his Administration would represent all Colombians and endorsed the social legislation put into effect by the Liberals. During his campaign, he declared himself in favor of collaboration between the Liberal and Conservatives and envisaged a Coalition Cabinet.

During a visit to Washington, D.C. early in June, President-elect Pérez expressed the desire to place his Government on a wide plane of national and political unity after his inauguration on August 7, and invite more Liberals into his Cabinet than was permitted to the Conservatives by Provisional President Lleras Comargo. He also declared that the immediate aim of his government would be the creation of a social security system to provide benefits for industrial and agricultural workers in sickness, old age, maternity, and industrial accidents.

On his return to Bogotá, Pérez declared that his new Cabinet would be divided equally between Liberal and Conservatives as would be the Governorships of the fourteen states. In a joint session of Congress on August 5 Carol Arango Velez, Ambassador to the Vatican and a Liberal, was elected Vice President.

At the outset of his new Conservative Government, President Pérez found himself in the midst of labor and political troubles that lasted throughout the remainder of 1946. In early October, Colombia's 15,000 oil workers went on strike in protest against the refusal of the oil companies to grant substantial wage increases and were later joined, in sympathy, by Bogotá's bus and taxi drivers. In November 14 the Liberal majority in Congress defeated, 59 to 26, a proposal for Liberal cooperation with the Conservative Government. The five Liberal Cabinet ministers immediately resigned and were followed by the Liberal Governors of several states. To permit the President to completely reorganize the Cabinet, the Conservative ministers also submitted their resignations.

Adding two new ministers, Hygiene and Justice, President Pérez reorganized the Cabinet on December 12, on an equal coalition basis to include the following:

Minister of Government—Roberto Urdaneta, Conservative; Finance—Francisco de Paula Pérez, Conservative; Public Works—Dario Botero Isaza, Conservative; Education—Miguel Jimenez López, Conservative; Posts and Telegraphs—José Vicente Davila, Conservative; Minister of Justice—Arturo Tabias Pilonieta, Conservative; Minister of War—Carlos Sanz de Sentamaria, Liberal; Foreign Relations—Carlos Lozano, Liberal; Ministry of Mines—Tulio Enrique Tascon, Liberal; Hygiene—Dr. Jorge Bejarano, Liberal; Labor—Dias Herrera Anzoategui, Liberal; Economy—Roberto Marulanda, Liberal.

Congress adjourned its regular 1946 session on December 16 and included among its accomplishments the stimulation of agricultural production through irrigation projects, wide electrification and several measures for social improvement. A 1947 budget of $170,235,000 was approved.

International Relations. Colombia shied away from any solo intervention methods in rejecting a Uruguayan plan on January 4 that proposed hemispheric intervention in the affairs of an American nation that failed to follow democratic practices. In the reply, the Foreign Office stated that while Colombia adhered to the policy of non-intervention, she would consider suggestions comparable to the Uruguayan plan in connection with the forthcoming Pan-American security conference.

During February, Colombia and Canada signed a most-favored-nation commercial treaty, which took into consideration the sterling commitments of the Dominion and included the exchange of newsprint, automobiles, and pharmaceuticals from Canada for coffee and vegetable products from Colombia.

A Gran Colombia, the plan for a coalition between South America's northern states, first conceived in 1822, received new realization in January when Colombia, Venezuela, and Ecuador adopted the idea for a combined merchant fleet. According to the plan, Colombia and Venezuela will each subscribe 40 percent of the 50,000,000 pesos (U.S.-$28,000,000) capital and Ecuador 20 percent. All will contribute personnel and ships.

Actually the interest in the Gran Colombia idea was evident during the war when the three countries acted simultaneously on withdrawing their representatives from Vichy, France, in September, 1942; in recognizing that Czechoslovak government-in-exile in January, 1943; in reserving the rights of their nationals in Axis-dominated areas and in recognizing the French Committee of National Liberation in July, 1942.

After Simón Bolívar liberated the countries from Spanish rule in 1822 and until 1830 when they separated into the states they are today, the countries were incorporated into the Gran Colombia.

National Economy. Colombia is chiefly an agricultural country. The most important crop is coffee, of which Colombia is the second largest producer in the world. Other leading crops are: corn, sugar, bananas, wheat, rice, and potatoes. The pastoral industry is also of considerable significance. Coffee production for the 1944–45 season reached a total of 727,518,000 pounds. Estimated annual production of corn is 650,000 tons, and of potatoes, 418,000 tons. Estimated production of wheat in 1944 was 100,000 metric tons; of rice, 121,000 tons of paddy rice, or 65,045 tons of polished rice. Sugar production in 1944 totaled about 88,000 short tons.

Colombia has extensive mineral resources. Petroleum provides the second most valuable of the country's exports. Total crude oil production during the 1945 fiscal year amounted to 21,980,147 barrels, compared with 18,261,065 barrels in 1943. Of the total $176,159,720 invested in the oil industry, only 8 percent is Colombian capital. Colombia also produces gold and platinum; production in 1944 amounted to 553,531 troy ounces of gold, and 34,259 troy ounces of platinum. Copper, iron, and emeralds are also important mineral products.

There is little heavy industry, but Colombia manufactures a variety of products. The year 1944 was notable for continued commercial and industrial development. Principal commodities manufactured include: textiles, leather, beverages, cigarettes, glass, perfumery, cement, brick, pharmaceuticals, and clothing.

Foreign Trade. In recent years Colombia's foreign trade with countries in the Eastern Hemisphere has declined, while trade with western hemisphere nations has greatly increased. Total exports for 1943 were valued at 218,525,000, pesos. Principal products exported, by value, were: coffee, crude petroleum, dyed cotton cloth, cattle hides, cattle, and platinum. The U.S. received 85.6 percent of the total exports to western hemisphere countries. During the 1944–45 coffee quota year a total of 5,185,517 sacks of 60 kilograms each were exported from Colombia, of which 4,696,255 sacks went to the U.S., and 71,911 sacks to Europe. The value of coffee exported in 1944–45 exceeded 177,000,000 pesos. Exports of petroleum in 1944 were valued at 37,317,000 pesos.

In 1943 total imports were valued at 146,692,000 pesos; the U.S. was the principal source of supply. In that year leading imports by value were: raw cotton and waste, rubber tires and tubes, dyed wool yarn, cotton thread, newsprint, and wrapping paper.

JOSEPH P. BLANK.

COMMERCE, U.S. Department of. A Department of the U.S. Government, created in 1903 as the Department of Commerce and Labor. The activities of the Department include population, agricultural and other censuses; collection, analysis, and dissemination of commercial statistics; promotion of foreign and domestic commerce; coastal and geodetic surveys; establishment of commodity weights, measures, and standards; supervision of the issuance of patents and the registration of trade-marks; the establishment and maintenance of aids to air navigation, the certification of airmen, the inspection and registration of aircraft, and the enforcement of rules and regulations issued pursuant to the Civil Aeronautics Act of 1938; supervision of the issuance of weather forecasts and warnings for the benefit of agriculture, commerce, and navigation including weather service for aviation, and the publication of climatic statistics; development of inland waterway transportation; and supervision of the operation of government-owned barge lines, and numerous other functions concerning these activities and related subjects.

The Department of Commerce as at present constituted, with the Office of the Secretary, includes:

Bureau of the Census
Bureau of Foreign and Domestic Commerce
Civil Aeronautics Administration
Coast and Geodetic Survey
Inland Waterways Corporation
Office of Small Business
Office of Business Economics
Office of Field Operations
Office of Domestic Commerce
Office of International Trade
Patent Office
National Bureau of Standards
Weather Bureau

Secretary in 1946: W. Averell Harriman; Under Secretary, William C. Foster.

COMMODITY CREDIT CORPORATION (CCC). An agency under the War Food Administration of the U.S. Department of Agriculture, established as an independent agency in 1933, transferred to the War Food Administration, Apr. 19, 1943, and later, June 29, 1945, placed again under the control of the Department of Agriculture. It has an authorized capital of $100,000,000.

The Corporation is empowered under its charter to buy and sell, lend upon, or otherwise deal in agricultural or other commodities. To finance these activities, it is permitted, under the act of Apr. 12, 1945, to borrow by the issuance of obligations guaranteed by the U.S. and not to exceed $4,750,000,000.

Prior to the outbreak of World War II the Corporation was engaged principally in making loans to farmers on agricultural commodities stored on farms and in warehouses. Objectives were to help stabilize the prices of farm products, bring about the orderly marketing of farm products, and to accumulate supplies during years of abundance for use in years of shortage. Following the outbreak of war, operations were expanded to help increase the production of food, feed, and fibers for war needs. To this end numerous loan, purchase, and sales programs are now in operation. Commodities include practically all the food and feed grains, vegetable-oil crops, some truck crops, cotton, hemp, and naval stores.

The Corporation buys, stores, and ships agricultural commodities and foods for the United Nations Relief and Rehabilitation Administration and cash-paying foreign governments; helps to finance the domestic production of commodities formerly imported; and disposes of surplus food and of farm commodities for export at competitive world prices, pursuant to the Surplus Property Act of 1944. President in 1946: Jesse B. Gilmer (acting).

COMMONWEALTH FUND, The. This endowment, established in 1918 by Mrs. Stephen V. Harkness "to do something for the welfare of mankind," and later increased by gifts from the founder and from Edward S. Harkness, President of the Fund from its inception until his death January 29, 1940, now amounts to approximately $50,237,489. Appropriations in the year ended September 30, 1946, were $2,121,917.69. Activities tending to promote or maintain physical and mental health accounted for more than 85 percent of this total. More than $400,000 was appropriated for medical research. A pilot course in psychotherapy for general physicians given at the Center for Continuation Study at the

University of Minnesota highlighted the year's work in medical education. Fellowships were offered as usual for advanced medical study; provision was made for visiting instructors in medical schools; aid was given to departments of preventive medicine and psychiatry, and to clinical and teaching services designed to encourage comprehensive medicine. Public health activities designed to raise standards of rural service centered in Mississippi, Oklahoma, and Tennessee, and professional training for public health was fostered in Louisiana and Florida. In the rural hospital program emphasis was thrown on the regional linking of small hospitals with medical centers as a means of raising the level of rural medical care. An experimental project for this purpose was set up in the area surrounding Rochester, New York, and the Medical College of Virginia was aided in extending educational services to surrounding hospitals. The Commonwealth Fund Fellowships for British graduate students at American universities, suspended during the war, were resumed with the appointment of 20 Fellows for the year 1946–47. The Fund published in the year nine books and two pamphlets of educational significance in its fields of operation. The Directors: Malcolm P. Aldrich (President), David P. Barr, William E. Birdsall, Phil W. Bunnell, Robert A. Lovett, Lewis Perry, Barry C. Smith, William E. Stevenson, and Thomas D. Thacher. Offices: 41 East 57th Street, New York 22, New York.

COMMUNICATIONS, Electrical. August 6, 1946 was the 20th anniversary of the first successful commercial presentation of motion pictures with associated sound effects. That event climaxed a quarter-century of experimental effort to join sight and sound in the motion picture, an effort that was finally brought to successful conclusion through the development of electronic and electromagnetic equipment which obviated the insuperable difficulties entailed with the direct mechanical recording of sound as was represented in the phonograph prior to its "electrification." The first successful sound-motion-picture showing were "shorts," principally musical numbers. In 1927, Al Jolson, in "The Jazz Singer," introduced singing and speech for the first time in a full-length motion-picture feature, the public success of which caused essentially the entire motion-picture industry immediately to turn to the production of sound pictures. The development of sound equipment, both recording and reproduction, was the direct result of the continuing research of the telephone industry. The talking motion picture as it is known today did not come into being all at once. First there were mere "sound pictures" with only musical accompaniment; then, "talking pictures" like the "Jazz Singer;" later, so-called "all talking pictures;" finally "100 percent all-talking-pictures." Earlier sound pictures were produced by synchronizing motion-picture machines and special phonograph reproducing equipment; modern sound pictures contain the sound-track photographically reproduced right on the motion-picture film.

By action of the National Bureau of Standards of the Department of Commerce, the entire microwave range up to 33,000 megacycles per second now is covered by official frequency standards. This brings a degree of order out of the mushroom-like wartime developments which are now revolutionizing the whole radio field. The new frequency range is about 30,000 times greater than the present broadcast band of frequencies. The new frequency standards for the microwave range have an accuracy of one part in ten million; in the ultra-high frequency and super-high frequency band, this accuracy is better than one part in a hundred million. These fixed frequencies cover the two bands at intervals of approximately one percent, which is the normal separation between stations operating in the conventional broadcast range. The number of new channels thus is enormous, and the high degree of precision in the separation makes available the largest possible number of usable channels and reduces interference to a minimum. Generally speaking, microwaves extend from 10 centimeters down; the Bureau of Standards now is working on the millimeter region. For the purposes of classification and allocation, microwaves are divided into four bands with the following nomenclatures:

Designation	*Symbol*	*Megacycles*	*Wave Length in Centimeters*
High	HF	3–30	10,000–1,000
Very High	VHF	30–300	1,000–100
Ultra-High	UHF	300–3,000	100–10
Super-High	SHF	3,000–30,000	10–1

Late in the year, the International Standard Electric Corporation announced that it will distribute in countries outside of the United States the telephoto facsimile equipment manufactured by Times Telephoto Equipment, Inc., a subsidiary of the New York Times Company. This equipment, originally developed for the transmission of news photographs, was widely used for many purposes in the wartime communications services of the armed forces and of the Office of War Information. Until recently, the entire output of such equipment has been applied to the needs of the government and the Associated Press. Now that equipment is being produced in larger quantities than required by these agencies, it will be made available to others throughout the world.

Radio. The year 1946 came to a close with approximately 100 FM stations in operation or under construction, and applications for some 900 others had been, or were being, processed by the Federal Communications Commission. The production of equipment for FM transmitter stations had reached a substantial level and was rapidly growing. According to industry reports, at least 90 percent of the better console models of radio broadcast receivers and 20 percent or more of all receiving sets produced in 1947 are expected to be fitted for FM reception. One factor that served to retard FM development in 1946, according to industry reports, was the demand made by James C. Petrillo, head of the American Federation of Musicians, for double fees where a program was to be broadcast over both FM and standard stations.

In general, with its record 1946 production of 15,000,000 receiving sets, the radio industry provided one outstanding example of American industrial accomplishment in transition from wartime to peacetime production.

Early in the year, radio broadcasting suffered some setback as the result of a rather general shifting and cancellation of programs. However, the situation had become stabilized again by the latter part of the year. The American Broadcasting Company was regarded as having scored the coup of the year by winning the Philco-sponsored Bing Crosby show, and also caused some furore and speculation in the industry as to the status and future of "live" shows by handling the Crosby show through the medium of recordings.

Voluminous criticisms of radio programs in general reached something of a peak in the so-called

"Blue Book" issued by the FCC under the chairmanship of Paul A. Porter, who later was chief of the Office of Price Administration. The FCC Blue Book sharply criticized the broadcasting industry for excessive commercialization and called for more public-service programs. Although the National Association of Broadcasters strongly resented the FCC charges, and complained that the Commission was overstepping its regulatory functions and undertaking to censor radio programs, two of the largest networks—Columbia Broadcasting System and National Broadcasting Company—decided that something constructive could be done about it, and instituted a radio discussion period "Time for Reason—About Radio" for the purpose of exploring public sentiment.

When a broadcasting station applies for a three-year license, the FCC requires the applicant to promise to originate a satisfactory number of educational and other public-service programs. The Commission made it very clear in 1946 that stations applying for license renewal will have their records examined thoroughly to determine the extent of fulfillment of this pledge. The Commission has said that if the station's performance is unsatisfactory, no licenses will be renewed. So far, no station has been denied license renewal, although as the year closed a test case in the courts was in the making and undoubtedly destined to go to the Supreme Court unless Congress should intervene.

In November, the call letters of the New York key station of the National Broadcasting System were changed from WEAF to WNBC. Similarly, the call letters of the New York key station of the Columbia Broadcasting System were changed from WABC to WCBS. The change in the WEAF call letters is reminiscent of a bit of pertinent history. In October 1919, the Bell Telephone Laboratories, Inc., in New York City, were authorized to establish a 100-watt transmitting station the call letters of which were 2XB. Later the power was raised to a 500-watt output, and in June 1922, the station received a broadcast license with call letters WEAF. The station was atop the Bell Laboratories building on West Street in lower New York City and served as a valuable proving ground in the telephone company's study of radio technique and equipment. Credit also is claimed by WEAF for pioneering the American method of supporting the expense of radio broadcasting service by the sale of time to advertisers. In 1926, the telephone company sold WEAF to the National Broadcasting Company, which subsequently moved the station to Bellmore, New York.

Typical of innovations in radio-receiving equipment are the following: A new self-charging portable radio designed to operate for 20 hours on one cent's worth of electricity, through the medium of a small 2-volt "leak-proof" storage battery which is recharged automatically whenever the set is plugged into alternating current house supply. To replace the hitherto common filament-type rectifier tubes, tiny selenium rectifier units are coming into use; these were used by the millions in proximity-fuze bombs during the war. A coin-operated receiving set for hotel-room use supplies two hours of reception upon insertion of a 25-cent coin. A table model combination electric clock and radio takes the place of an alarm clock, awakening the sleeper by automatically turning on at a predetermined time a preselected radio station.

Multiplex radio broadcasting—the transmission of numerous radio programs at the same time over the same transmitter on a single radio-frequency channel—was demonstrated during September and October to the FCC, chief communications officers of the U.S. armed forces, and others. The programs which were broadcast simultaneously included; (1) transmission of photographs and facsimile copy including weather maps; (2) the Dow Jones financial news ticker service; (3) conventional teletype transmission; (4) a news commentator; (5) a rebroadcast of a standard AM radio program; (6) rebroadcast of a standard FM radio program; (7) transmission of music such as ordinarily delivered in some large cities by wire from a central point to restaurants, hotels, clubs, etc.; (8) a program of recorded music. The multiplex broadcasting system demonstrated was based upon a previous development of multi-channel pulse-time-modulated microwave link. See 1946 YEAR BOOK.

Radiotelephony. The Bell System announced early in 1946 that rapid progress was being made in its postwar program to restore world wide radiotelephone connections, and to extend the scope of and improve the facilities for radiotelephone service so that from any telephone on its United States system a direct connection via radio would be possible with individual telephones in more than 80 overseas countries and territories. By early in the year, overseas service has been reestablished for public use between the United States and Great Britain, France, the Netherlands, Switzerland, Spain, Portugal, and Italy, also for government and press calls, with Russia. Service to several cities in the American zone of occupation in Germany enabled military personnel to communicate with relatives in the United States; similar service was established across the Pacific for the use of military personnel in Japan.

Public radiotelephone service also was reestablished with the Philippines and Australia, and newly established with New Zealand. Service to Hawaii was available all during the war, as it was with Central and South America and most Caribbean countries. Direct service was opened with Egypt; extended subsequently as conditions and equipment permitted to Norway, Belgium, Sweden, Denmark, and Iceland; progress was made also toward the reestablishment of trans-Pacific service to China and Java. Overseas traffic is many times higher than it was prewar, and rates in general are reported as being about 40 percent lower than prewar. A typical three-minute conversation between New York and most points in Europe, the Pacific area, and South America, was reported as costing $12, with lower charges for the same call to Hawaii, the Caribbean area, Central America, and northern South America. During the first two months following the reestablishment of public radiotelephone service across the Atlantic in June 1945, the traffic was reported as equalling the volume for the entire first eight months of the year 1939, the last normal prewar period reported upon. The traffic has steadily grown.

Two new developments in communication facilities of great potential significance to the aviation industry were demonstrated at the Indianapolis Municipal Airport in October during the convening there of aviation experts from 38 nations who were gathered to study United States methods of air navigation. One of these new equipments was an experimental model of a flying radioteletype. The other demonstration was a trial of telephone communication between an airplane in flight and a ground telephone station served by the ground telephone communication network. Both local and long-distance telephone calls were established each way between the ground and two airplanes of the Civil Aeronautics Administration which were in

flight over Indianapolis. These involved a combination of wire and radio transmission. Similarly, in the flying teletype test, direct teletype messages concerning weather reports and other desired data were sent from teletypewriters on the ground to the airplanes in flight, and also from the planes to the ground.

Service between the United States and the Virgin Islands was inaugurated on October 15, providing not only the first direct radiotelephone connection between the United States and St. Thomas, but providing also for the first time direct service between the neighboring islands of St. Thomas and Puerto Rico.

Indicative of the trend in maritime radiotelephone communication is the installation reported for the "Queen Elizabeth." Included in this installation are: simultaneous radiotelephone and radiotelegraph services with Great Britain and with the United States, and connections through either of these to any part of the world; self-powered emergency radio for individual lifeboats, radio direction-finders; a special radio for harbor communication, very useful in docking such large ships; a complete sound-distribution and amplification system throughout the ship which provides passengers with music, entertainment, news, and programs originating either on the ship or picked up by radio. Perhaps the most outstanding feature of the whole installation is the elaborate radiotelephone system whereby individual passengers may pick up their bedside telephones and call through New York or London to any country in the world where telephone service is connected to an international exchange; also, passengers may converse with passengers on other ships fitted with radiotelephones. In addition to such recently developed navigational aids as radar, the "Queen Elizabeth" is fitted with two separate direction-finders.

As of September 12, 1946, the FCC revised its rules and regulations to permit the widespread use of mobile radiotelephone service and equipment by public utilities companies in connection with system operation and maintenance. As reported in the 1946 YEAR BOOK, mobile radiotelephone service brings to drivers of appropriately equipped vehicles the advantages of two-way voice communication, either with predetermined central control points or through such points to any telephone on an established wire-line system. The following selected examples, among those reported for 1946 will show the trends and significant possibilities of this development:

As of November 6, the Northwestern Bell Telephone was authorized by FCC to operate 30 experimental radiotelephone mobile units in and around Des Moines, Iowa. The Commission described this as a part of a national program for exploring the mobile telephone service field for the purpose of developing basic information for future government regulations governing the licensing and operation of mobile radiotelephone equipment in the United States. In Portland, Oregon, an electric utility has installed an FM radiostation atop a nearby mountain to provide a medium for radiotelephone communication between its central office in Portland and its fleet of cars, trucks, and other vehicles associated with system construction, operation, and maintenance. In the Middle West, plans were reported by a large electrical manufacturing company to provide for two-way radiotelephone communication between a central dispatching office and a fleet of electric trucks operating throughout the extensive factory grounds. Incidental to a violent explosion and fierce resulting fire in an aviation-gasoline plant near Philadelphia, which claimed the lives of nine persons and seriously burned 200 others, a radiotelephone-equipped truck belonging to the local telephone company served as an emergency communication center through which officials were able to summon additional aid as required, to direct rescue operations, and to handle calls to hospitals and physicians. In New York City, a handset telephone with an ordinary dial was used by the driver of an automobile to communicate with a station more than a mile away, and to choose selectively the station to which to direct his call. This was taken as the advance indication of a future possibility whereby drivers may dial into existing telephone lines for either local or long-distance calls, and through which a station may contact any car on the road if its general location is known.

An enormous expansion of two-way radiotelephone communication in railroad service was indicated in an FCC prediction of January 1946 that by July 1947 there would be 3,000 U.S. railroad stations equipped for two-way communication with moving trains and other points. Permits for experimental installations numbered only 145 as of July 1, 1945, exceeded 2,000 by mid-1946, and were expected to reach 3,300 by mid-1947. In addition to the 3,300 railroad-station radiotelephone installations, the FCC expects that an additional 1,800 such installations will be made by other companies by July 1947. Experimental work is continuing in the effort to develop radio-communications equipment which can be used effectively inside of railroad and other tunnels.

Telephony. At the beginning of 1946, the first peacetime year since 1941, some 54 percent of the world's 51.5 million telephones, or 28 million were installed in the United States. During the four war years, in spite of critical shortages of material and labor, the number of U.S. telephones increased about 19 percent, but left an unsatisfied demand of approximately 10 percent or 2.5 million telephones represented in backlog service orders at the beginning of the year. During the first ten months of 1946 the total number of telephones in service in the United States passed the 30-million mark, some 25.2 million on the Bell System and five million among the 6,000 independent telephone companies in the United States. In spite of this, it was expected that a backlog of more than two million telephone-service applications would be carried over from 1946 to 1947.

Statistical information pertaining to the quantity and distribution of the world's telephones are given in the accompanying table. These data reflect the world's telephone situation as of January 1, 1946, to the limit of available information. An interesting comparison is revealed by the figures. In the United States, where the telephone industry is a free private enterprise operating under government regulation, there are 21 telephones for each 100 population compared with an average development of 2.2 telephones per 100 population for the entire world. Compared with this, Australia, Great Britain, France, Russia, and Sweden together had only three telephones per 100 population, although they account for some 12 percent of the world's population as compared with the United States' 6 percent. Yet these countries reported the five largest telephone systems owned and operated by national governments. New York with 2,002,310, and Chicago with 1,204,525, still are reported as the two largest urban telephone centers in the world. In spite of such concentration, however, no single city

in the United States has as many as 8 percent of the total number of U.S. telephones. In comparison with this, the capital cities of Belgium, Denmark, and France each contained approximately a third of the total number of telephones in those countries; more than 29 percent of Norway's telephones are in Oslo, alone, and more than 25 percent of Sweden's telephones are in the Stockholm area. San Francisco still leads the world in telephone density, with 43.3 telephones for each 100 inhabitants; among large foreign cities, only Stockholm with 38.4 telephones per 100 population even approaches San Francisco's record.

Two telephone developments of particular significance to sparsely settled areas were extended in 1946. One of these was a system for providing telephone service over electric power distribution lines. The other was the more-or-less experimental development of radiotelephone service for farms and ranches remote even from electric power lines.

TELEPHONE STATISTICS OF THE WORLD
Latest Available Data (Sept. 1, 1946)

	Telephones		*Telephone Wire*		*Conversations*		*Telephones in Large Cities*		
Countries	*Thousands*	*Per 100 Pop.*	*Thousands of Miles*	*Per 100 Pop.*	*Millions*	*Per Avg. Capita*	*Exchange Area*	*Telephones Thousands*	*Per 100 Pop.*
NORTH AMERICA:									
United States	27,867.0	21.0	110,700	83.5	36,765	284.5	New York City [a]	2,002.3	27.8
Canada	1,692 2	14.4	6,058	51.6	2,980	254 7	Montreal (1-1-46)	242.8	20.5
Mexico	217.0	1.0	885	4.1	575	26.8	Mexico City	117.3	6.8
Cuba	81.1	1.6	341	6.8	463	93.2	Havana	58.0	8.1
Puerto Rico	25.8	1.3	76	3.7	58	28.5	.....	....	...
Total	30,100.0	15.4	....	...	....	....	.....	....	...
SOUTH AMERICA:									
Argentina	571.0	4.0	3,050	21.3	....	....	Buenos Aires	346.7	9.7
Bolivia	7.6	0.2	15	0 4	....	....	.....	....	...
Brazil	331.0	0.8	1,360	3 2	1,700	40 3	Rio de Janeiro	131.4	6.6
Chile	109.5	2.0	382	7.1	369	68.8	Santiago	59.4	5.9
Colombia	47.1	0.5	200	2 0	....	....	Bogota	16.5	4.1
Ecuador	8 6	0 3	10	0 3	....	....	Quito	3.8	2.2
Paraguay	4.2	0 4	11	1 0	....	....	.....	....	...
Peru	39.6	0 5	138	1.8	....	....	Lima (1-1-45)	26.1	4.7
Uruguay	57.8	2.7	187	8.6	160	73 5	Montevideo	42.1	5 9
Venezuela	36.1	1.0	120	3.3	214	58.6	Caracas	25.8	8.1
Guianas	3.6	0.6	10	1.7	....	....	.....	....	...
Total	1,290.0	1.3	....	...	....	....	.....	....	...
EUROPE:									
Belgium	379.6	4.5	....	...	289	34 3	Brussels	138.7	13.7
Bulgaria	44 9	0.6	....	...	....	....	.....	....	...
Denmark	567.3	14.2	1,630	41.0	960	241 7	Copenhagen	265 5	26.3
Eire	55.1	1.9	194	6.6	56	19.0	Dublin	31.7	6.5
Finland	243.7	6.2	....	...	....	....	.....	....	...
France	1,879 5	4.7	....	...	1,358	34.2	.....	....	...
Great Britain	3,925.0	8 2	18,500	38.5	....	. ..	.....	....	...
Hungary	256 9	1.7	580	3 9	340	22 8	.....	....	...
Norway	327 0	10.9	974	32 4	433	144.5	Oslo (6-30-45)	95 6	22.0
Portugal	97.7	1.2	210	2 6	....	....	Lisbon	42.0	5.7
Russia	1,272 5	0 8	2,000	1 2	....	....	Moscow (1-1-36)	144.7	3.5
Spain	447.2	1.6	1,141	4 2	997	36 8	Madrid	95 4	7.9
Sweden	1,168.1	17.7	3,929	59.6	1,596	243 3	Stockholm	310 5	38 4
Switzerland	645.4	14.7	1,950	44.3	543	124 0	Zurich	102.6	27.4
Total	16,980 0	2.9	....	...	....	....	.....	....	...
ASIA:									
British India	118.6	0.03	776	0.2	....	....	Calcutta	28.5	1 3
Total	1,500.0	0.1	....	...	....	....	... ..	....	...
AFRICA:									
Union of South Africa	275 0	2.5	1,165	10.4	380	34.1	Johannesburg	72.1	11.0
Total	430 0	0.2	....	...	....	....	.....	....	...
OCEANIA:									
Australia	799.7	10.9	3,670	50.2	715	98.4	.....	....	...
Hawaii	69 0	13.8	201	40.3	....	....	Honolulu	39.1	18.2
New Zealand	265 8	15 6	....	...	....	....	.....	....	...
Total	1,200 0	1.1	....	...	....	....	.....	....	...
TOTAL WORLD	51,500.0	2.2	....	...	....	....	.....	....	...

NOTES: The above statistics as published by American Tel & Tel. Co. incorporate the most recent information available on August 31, 1946. Totals for the world and geographical areas are partly estimated.

[a] The telephone development (telephone expressed in thousands) of other representative cities in the United States was, on January 1, 1946:

Chicago, Ill.	1,204 5	telephones, or 34.5 per 100 population	
Los Angeles, Cal.	591 0	" " 32.4 " " "	
Cleveland, Ohio	375 0	" " 31.2 " " "	
Washington, D.C.	364.4	" " 39 9 " " "	
San Francisco, Cal.	344.0	" " 43.3 " " "	
Boston, Mass.	232.0	" " 33.2 " " "	
Milwaukee, Wis.	215 6	telephones, or 27.2 per 100 population	
Minneapolis, Minn.	198.2	" " 35.8 " " "	
Seattle, Wash.	190 3	" " 33.2 " " "	
Denver, Col.	134.7	" " 36.4 " " "	
Hartford, Conn.	90.8	" " 33.8 " " "	
Omaha, Neb.	84.3	" " 31.2 " " "	

Both these developments seem to be destined to establish themselves as important elements in the nation's evergrowing voice communication systems.

The transcontinental coaxial-cable telephone-line project of the Bell System was further extended during 1946, approximately 3,000 miles of it having been laid in the ground by the end of the year, with an additional 3,000 miles scheduled for 1947. A single pair of coaxial-cable units can accommodate 480 telephone circuits, and the coaxial cables being laid include up to four such pairs. The cables will accommodate television broadcast distribution as well as ordinary long-distance telephone service.

Another rapidly developing and potentially significant type of facility in the U.S. long distance telephone network is the ultra-high frequency "microwave" or "microray," wartime radio-relay system. The Bell System's experimental radio-relay system currently being installed between Boston and New York was expected to be available for experimental operation by the spring of 1947.

Reviving an old complaint, the telephone industry of the United States filed briefs with the FCC emphasizing the "right of privacy" in telephone service as against the use of recording devices in connection with telephones; further, urged the Commission to promulgate the principles that would be helpful in controlling and solving recorder problem in connection with telephone service. Recorders for telephone conversations were used rather extensively during the war incidental to military operations, but many persons regard the use of such equipment in ordinary peacetime commercial telephone service as being closely akin to wire-tapping.

One of the largest international business operations in recent years and probably the largest financial transaction in the history of international communications was consummated September 28, 1946, when the Argentine Congress ratified purchase by the Argentine Government of the United River Plate Telephone Co. Ltd. from the International Telephone and Telegraph Co. The reported price was $94,991,364.42 plus the assumption by the Argentine Government of the Company's debentures outstanding in the Argentine, Swiss, and Swedish markets. I.T.&T. will continue for ten years as technical adviser in the operation of the system.

Telegraphy. As reported in the 1946 YEAR BOOK, the Western Union Telegraph Company, based upon successful experimentation under commercial traffic conditions, has begun the construction of a super-high-frequency radio-relay system utilizing wartime developments which ultimately may supersede entirely the conventional wire systems for heavy-traffic telegraph circuits. The first step in this program was the expansion of the experimental radiotelegraph-relay link between New York and Philadelphia into a triangular radio-relay link interconnecting New York, Washington, and Pittsburgh. This work was reported to be well under way at the close of 1946, and scheduled for completion in 1947.

International developments in telegraph communication included the establishment of direct high-speed radiotelegraph service between New York and Rome, and the establishment of facilities for transmitting facsimile and telephoto subjects to various foreign countries.

Television. Potentialities of television continued to excite a good many persons, but very little was actually accomplished in the placement of television programs in the American home. Few companies were making any receiving sets at all, and these only in limited quantities. As compared with an industry objective of some 15-million radio-receiving sets for 1947, the expectancy was for less than a half-million television sets for 1947. Most of the 1946 television publicity had to do with claims, pro and con, on the question as to whether the involved technical developments had yet advanced sufficiently to make color television logical. Chief advocate of immediate color was the Columbia Broadcasting System which made repeated public demonstrations and tests of its mechanical-disc system. Chief antagonist of immediate color was Radio Corporation of America whose engineers seemed to be thoroughly convinced that practical color television was not yet ready for general use, and that it should be accomplished by electronic means rather than mechanical means before it is released. R.C.A., too, made demonstrations in support of its contention.

Early in December, CBS made representations to the Federal Communications Commission calling for the establishment of commercial standards for color television. This action seemed very likely to bring the color controversy to a head. Emphasizing its determination to promote immediate color television, CBS was proceeding with its installations of a one-kilowatt-output television broadcasting equipment on the 71st floor of the Chrysler Building in New York City, to operate on a carrier frequency of 490 megacycles assigned by FCC. For faithful reproduction of the original subject the image transmission will record all frequencies between 20 cycles and 10 megacycles per second. The one-kilowatt power output is the high power reliably available with existing equipment and technique. With appropriate directive antenna, CBS engineers considered that the power available would be adequate for satisfactory coverage of the New York metropolitan and suburban areas, based upon preliminary tests.

Available year-end statistics indicated a total of only approximately 8,000 television receiving sets currently in service in the United States, approximately 5,000 of them in the New York metropolitan area. New television home receivers were being advertised at prices ranging from $225 to $2,800. The lower prices covered table models providing a viewing screen approximately 4 x 5 inches in size, together with television sound reception, but no standard broadcast reception. The top-priced sets included viewing screens up to approximately 20 x 30 inches in size, the increase being accomplished by a system of lenses and mirrors, and included a full variety of radio-broadcast and phonograph equipment. These receivers for black-and-white reception only, were producing results definitely superior to the reception quality of prewar sets.

Television programs are in the stage of somewhat uncertain development. The bulk of current "telecasts" represents direct pick-ups of baseball games, football games, and other sporting events, although studio shows, including those of an audience-participation nature, and motion pictures are being used. Experiments in theatre use of television equipment were being conducted on a full-scale basis in New York City. Some observers were predicting that television would be sufficiently extensive by 1948 to exert material influence on that year's political campaign.

For the inter-city exchange transmission of television programs, the only facility available by the year-end was the American Telephone and Telegraph Company's coaxial-cable system between

New York, Philadelphia, and Washington, and an overland radio-relay installation near Schenectady, N.Y., capable of direct pickup of television programs from the Empire State Building in New York City approximately 150 miles distant. The experimental radio-relay communication channel being established by the Bell System between New York and Boston also may be effective in the intercity exchange of television programs.

In spite of promotional demonstrations of facsimile radio transmission and receiving equipment, practical progress left little of significance to report at the end of the year.

The application of television and radar equipment to the navigational needs of commercial aviation continued to be the subject of extensive and intensive laboratory and field investigation during 1946. Military radar equipment developed during the war, as effective as it was, has proved to be entirely too expensive for practical commercial application. The trend in developments seems to indicate, however, that both the cost of such equipment, and the weight of the airborne equipment, soon may be brought to a range within practical commercial possibilities. For the special purpose of assisting aircraft to land at airports under conditions of zero visibility, a combination of television and radar equipment and procedure showed great promise.

For quite some time the military services had demonstrated the success of what has been called a "ground-control approach" (GCA) system which, when operated on the ground at the airport, could locate a nearby approaching plane on radar viewers and the operator, by using radiotelephone to give direct instructions to an incoming pilot, literally could "talk" the pilot right down onto the runway. Under this system, of course, the pilot is flying entirely blind and must judge his actual location with respect to his desired runway entirely by means of the instructions received vocally from the crew on the ground. To this GCA equipment television now has been added to enable an incoming pilot literally to "see" a television-radar-equipped airport from anywhere within a radius of 30 miles or so of that port, thus enabling the pilot to determine his own position visually with reference not only to the airport, but to any other aircraft in the immediate area. The essential features of this equipment are a ground-search radar which surveys the air space adjacent to an airport and gives a visual picture of that space and its content on its cathode-ray-tube viewing screen; this radar "picture" then is picked up automatically by a television camera, combined visually with a superimposed map of the area, and the combination picture is broadcast by an ordinary television transmitter, the signals of which can be picked up by incoming aircraft. Different manufacturers have given this type of equipment such special names as "Teleran," "Navar," etc.

Extensive field experiments with the new combination television-radar equipment were proceeding apace at the year-end with considerable promise for 1947 and the future. The first routine application in North America to commercial airline operation of war-developed radar for aircraft landing, the GCA system alone, was in full operation at the transatlantic air terminal at Gander, Newfoundland.

Dr. Lee De Forest, famous for his development of the "Audion," early three-element vacuum tube, in a year-end statement said that 1947 "is certain to convince every skeptic, every scoffer, that television has arrived from around that fabled corner." Dr. De Forest further expressed the opinion that coaxial cables would not be economical for television networks, but would give way to radio-relay connections between broadcasting stations, especially "when we deal with 1,000-line picture standards, whither the art is . . . definitely destined."

As of July 1, 1946, the FCC has authorized a total of 14 commercial television broadcasting stations in the U.S.:

1. KTSL—Don Lee Broadcasting System, Los Angeles, Calif.
2. WABD—Dumont Laboratories, New York, N.Y.
3. WBKB—Balaban & Katz Corp., Chicago, Ill.
4. WCBW—Columbia Broadcasting System, New York, N.Y.
5. WNBT—National Broadcasting Co., New York, N.Y.
6. WNBW—National Broadcasting Co., New York, N.Y.
7. WRGB—General Electric Co., Schenectady, N.Y.
8. WPTZ—Philco Products, Inc., Philadelphia, Pa.
9. WTZR—Zenith Radio Corp., Chicago, Ill.
10. ——— Bamberger Broadcasting Service, Washington, D.C.
11. ——— Dumont Laboratories, Washington, D.C.
12. ——— Evening Star, Washington, D.C.
13. ——— National Broadcasting Co., Chicago, Ill.
14. ——— National Broadcasting Co., Cleveland, O.

Some 15 other applications for construction permits for commercial stations were pending, and 30 experimental stations were operating or under construction.

G. Ross Henninger.

COMMUNISM. Communist activities throughout the world have been greatly influenced in 1946, as always, by the domestic and especially by the foreign policies of the Soviet Union. This year the belligerence of the USSR in its foreign relations has been a matter of daily note. Whether this belligerence grows out of expansionist ambitions or results from Soviet suspicions of the United States and Great Britain, it is a fact of cardinal significance to every Communist.

In the USSR itself there have been noteworthy developments. To begin with, there has been a new emphasis on the revolutionary teachings of Marx and Lenin, which were seldom mentioned in the period of the anti-German alliance. Marshal Stalin gave the signal for this re-assertion of Marxist principles in his pre-election speech of February 9, 1946. Capitalism, he said, was responsible for both World War I and World War II, although he conceded that the latter had an anti-fascist and democratic character. The Soviet press, quick to follow Stalin's lead, has repeatedly attacked capitalism in the United States and Great Britain.

The purges that have taken place in Russia are also significant. Even if they are, as Walter Duranty suggests, merely the usual kind of periodic house cleaning, they show that Russia is preparing for any eventuality. The purges in the arts, moreover, are interesting because of the insistence on doing away with "alien"—i.e. western European and American—influences. The Soviet Union, it appears, is entering upon another period of isolationism. If one can judge from past experience, this is likely to result in increased dogmatism and inflexibility throughout the Communist movement.

However, just as the Soviet Union's utterances vary from the bellicose to the pacific, so Communist tactics in other countries are now revolutionary and now conciliatory. No decisive change has as yet taken place in the Communist line, but Communists are ready for such a change if circumstances make it necessary.

Russia's Sphere of Influence. As was pointed out in the article on Communism in the Year Book for 1945, the Soviet Union is determined to have only

friendly governments in neighboring countries, and its sphere of influence stretches from Finland in the north, through Poland, to the Balkans. Of the Balkan countries, only Greece lies outside the Russian zone. In Greece, where non-Communists are supported by British arms, 72 percent of the voters favored the restoration of the monarchy in a plebiscite held on September 1.

The Soviet Union obviously welcomes Communist or Communist-led governments in neighboring countries, since it can count on Communist loyalty, but it has shown its willingness to cooperate with politicians of almost any hue—so long as they are not hostile to Russia. Certain countries within the sphere of influence are completely under Communist domination; in others the Communists are still struggling for control; and in others a temporary balance of forces has been arrived at.

Yugoslavia, Bulgaria, and Albania are the countries in which Communist power is most firmly established. In Albania, 95 percent of the voters favored the National Front government of Enver Hoxha, which not only is sympathetic to the USSR but appears to be introducing Soviet institutions. In Bulgaria an election was held on October 27, despite protests from the United States, and 77 percent of the votes favored the five-party Fatherland Front, which is dominated by the Communists. Georgi Dimitrov, Communist leader, warned voters not to oppose the Front, reminding them of the fate of General Mikhailovitch. In Yugoslavia Marshal Tito and his Communist associates have strengthened their power since their victory in the election of November 11, 1945, and the trial and execution of Mikhailovitch demonstrated the dangers of opposition. It is said that from 70 to 90 percent of Yugoslavia's large industry has been nationalized.

In other countries in the Russian sphere of influence the degree of Communist control varies. In Rumania, for instance, the Communists dominate the government, but they have almost no popular following. In its replies to various American protests, the Democratic Front government of Petru Groza has made it clear that it would not permit the opposition to take office. The election of November 19, in which the Democratic Front won two-thirds of the votes, was denounced by both the United States and Great Britain as undemocratic.

In Poland a somewhat similar situation exists, for there is powerful opposition to the government of President Boleslaw Bierut and his Left Wing bloc, and Stanislaw Mikolajyck, leader of the Peasant Party, is a popular figure. Polish Communists have sought to strengthen their control, both by suppression of the opposition, and by the introduction of measures likely to win mass support. For example, the large estates have not been collectivized but have been broken up and distributed among the peasants. In a referendum held on June 30, the Left Wing carried its proposal for a unicameral legislature, winning 60 percent of the votes. After repeated postponements, an election was held on January 19, 1947, and resulted in the expected Left Wing victory.

In Finland and Czechoslovakia, non-Communist groups have for the most part reconciled themselves to Soviet domination. In Finland this acquiescence is a matter of bitter necessity, and in domestic affairs the Communists have lost ground in 1946. In Czechoslovakia, on the other hand, the relationship between Communists and non-Communists appears to be peaceful. The Communists emerged as the strongest single party in the election of May 26, and although they and their allies won a bare majority in parliament, they dominate the government. Prime Minister Klement Gottwald, a Communist, has been pushing an extensive program of nationalization. The opposition press, however, remains outspoken, and observers say there is a considerable degree of democracy.

Austria and Hungary have been treated by the USSR as conquered countries, and in both nations the Communists are unpopular. In elections held in November, 1945, the Hungarian Communist Party won only 54 parliamentary seats, and the Austrian Communists only four. Communists nevertheless hold important positions in the cabinets of both countries.

In Germany interest has centered in events in the Russian zone of occupation. In February the Communists began an attempt to merge the Communist Party and the Social Democratic Party. On March 1, a Social Democratic convention rejected the merger, and later in the month a vote of the membership supported this position. Otto Grotewohl, party chairman, and other Social Democratic Party leaders who favored the merger were removed from office, and the Grotewohl faction then joined the Communists in forming the Socialist Union Party. Members of this group argued that the Social Democratic Party had passed out of existence and should not be put on the ballot, but the Allied Control Commission recognized both the Social Democratic Party and the Socialist Union Party. In local elections, held in the first part of September, the Socialist Union Party won majorities in most cities of the Russian zone, but was less successful than had been predicted. In elections for the state assembly on October 20, the Union Party made an even poorer showing, and in Berlin, to the surprise of most observers, it received only 20 percent of the vote, with nearly 50 percent going to the Social Democrats. In various local elections in the American, British, and French zones the Communists have been a poor third, the great majority of the votes being divided between the Social Democrats and the Christian Democrats.

Western Europe. The Communist defeat in Berlin seemed to some students to indicate a decline of Communist influence. In most countries, however, it would appear that the Communists have at least held their own in 1946. They have made gains in Holland and Belgium, and in the latter country the Socialists cannot hold power without their support. In the French elections of June 2, the Communists dropped to second place, but in the elections of November 10 they once more emerged as the largest party in the Constituent Assembly. Their gains were made largely at the expense of the Socialists, who had refused to enter into a merger or close alliance.

In Italy the Communists were a relatively weak third in the elections of June 2 and 3, but Alcide de Gasperi, Christian Democratic leader, found it necessary to give them four places in his cabinet. The Communists have officially supported de Gasperi, but at the same time have criticized his policies. On October 27 they succeeded in forming a closer alliance with the Socialists, and the two parties made a strong showing in the municipal elections of November 11. The Trieste problem has been difficult for Italian Communists because of the Soviet Union's interest in that city. They have urged direct negotiations between Italy and Yugoslavia, and in November Palmiro Togliatti, Communist leader, announced that Marshal Tito was willing to confer with Italy.

In England the Communists have never been strong, and they made no gains in 1946. Their ap-

plication for affiliation with the Labor Party was rejected by a six-to-one vote. In local elections on November 1, only one out of 223 Communist candidates was elected.

United States. On February 13, 1946, Earl Browder, for many years general secretary of the Communist Party and president of the Communist Political Association during the brief period of its existence, was expelled from the party by the unanimous vote of the national committee. This appeared to end an incident that had begun in May, 1945, when Jacques Duclos, a leading French Communist, attacked Browder and his policies. Two months after Browder's expulsion, however, it was announced that he was flying to the Soviet Union. The fact that he had obtained a Russian visa was taken to prove that he could not be persona non grata in Moscow, and a few weeks after his arrival he revealed to correspondents that he had been chosen to represent Soviet publishers in the United States. Officials of the party continued to attack Browder, but it was obvious that his successful visit to Russia caused them embarrassment. After his return, Browder refrained from comments on the Communist Party of the United States, but in interviews and in a series of articles published in the *New Republic* he defended Soviet domestic and foreign policies as enthusiastically as he had ever done in his days of party leadership.

After Browder's overthrow, the Communist Party was committed to a more militant policy, but it has been cautious in the development of its new line. William Z. Foster, party chairman, has repeatedly referred to Truman's surrender to Wall Street, but the party has made a distinction between progressive and reactionary Democrats, and in the November elections the Communists supported many Democratic candidates. Ruth McKenney, author of *My Sister Eileen*, and her husband, Bruce Minton, a former editor of the *New Masses*, were charged with "Left sectarianism" because they maintained that the party had not gone far enough in repudiating Browderism, and they and others were expelled. It was between this "Left sectarianism" and the "Right opportunism" of Browder that the party steered its course during 1946.

Rather because of growing distrust of the Soviet Union than because of the party's new line, many labor unions took steps to curb Communist activities in their ranks, and there were struggles between Communist and anti-Communist factions in such important CIO unions as the National Maritime Union and the United Electrical and Radio Workers.

Latin America. Communist strength appears to be growing in several South American countries. In Brazil the Communists won more than 600,000 votes in the election of December 2, 1945, and Luis Carlos Prestes, Communist leader, has maintained a steady agitation. In Venezuela, Bolivia, and Peru, though their numbers are not great, the Communists have considerable influence. It is in Chile, however, that they have made the most striking showing, for the newly elected president, Gonzalez Videla, has acknowledged the importance of the party's support by giving cabinet seats to three of its members.

Since the end of the war, the Communist press throughout Latin America has revived talk of Yankee imperialism, and has done its best to create a public opinion hostile to the United States. Some embarrassment was caused by the fact that the Peron government in Argentina, which had ruthlessly suppressed Argentinian Communists and had been denounced by Communists everywhere as a fascist regime, resumed diplomatic relations with the Soviet Union on June 6, 1946, and was hailed by the Moscow press.

China. The situation in China, where Communist and anti-Communist forces are well matched, and where Russian and American interests clash, has remained critical and confused. At the end of 1945 a truce between the Kuomintang and the Communists appeared possible, and it seemed that their differences might be settled, at least in part, by parliamentary rather than military means. Negotiations were carried on intermittently throughout 1946, but at the same time there were military campaigns of considerable dimensions. The Communists demand a full coalition, with Communists in responsible positions, until an election is held. If negotiations finally break down, they have intimated, they will establish an autonomous state in North China and Manchuria. Chinese Communists have repeatedly criticized the United States for aiding Chiang Kai-shek's armies and for establishing military bases in China.

Elsewhere in Asia. Communists have created difficulties in Korea, which is divided into two zones, the northern being occupied by Russia and the southern by the United States. The Communists are strong in the northern zone, and it has been repeatedly charged that they aid their comrades in the south, who have opposed American occupation authorities. In Japan itself, on the other hand, the Communists have been much weaker than had been predicted. In the colonial countries the Communists are active, and occasionally they secure strategic positions, as in the new Indo-Chinese republic of Viet Nam, which has a Communist as its president. In the Philippines Communists have been articulate but apparently not influential.

GRANVILLE HICKS.

COMMUNITY CHESTS AND COUNCILS, Inc. The national membership association of Community Chests and Councils of Social Agencies, organized in February, 1918, as a national clearing house of ideas and service for Community Chests and Councils of Social Agencies. For description see YEAR BOOK for 1939. Of the 1,182 Chests and Councils in operation in August 1946 (852 Chests and 330 Councils), 811 Chests and 308 Councils were in continental United States; 4 Chests and 2 Councils in Hawaii; 34 Chests and 19 Councils in Canada; 2 Chests in South Africa; 1 Chest in the Virgin Islands; and 1 Council in the British West Indies. Almost every city in the United States (except New York City, which has a limited joint financing organization), in 1945 had a Community Chest or similar plan of federated financing for its voluntary social services. In 852 cities in 1945, more than twenty million contributions totaling $197,048,839 were given to Community Chests to be used during 1946 for voluntary social work in their communities and for National War Fund agencies. In 1946, following the liquidation of the National War Fund, the Chest campaigns were united under the name "The Community Chests of America," using the national symbol of the Red Feather and the slogan, "Everybody Benefits—Everybody Gives."

Officers of the association for 1946 are: Honorary President: Gerard Swope. President: E. A. Roberts. Vice Presidents: J. B. Adoue, Jr., H. L. R. Emmet, Philip M. Morgan and Mrs. Henry P. Russell. Treasurer: Milton H. Glover. Secretary: Robert P. Lane. Executive Director: Ralph H. Blanchard. Address: 155 East 44 Street, New York 17, New York.

COMMUNITY TRUSTS. The aggregate charitable resources of 75 community trusts and foundations had risen to $75,092,009, at the beginning of 1946, from $67,041,684 a year before. The New York Community Trust administers 70 funds totaling $17,090,046. Resources of $12,274,073 were reported by the Chicago Community Trust; $9,607,644 by the Cleveland Foundation; $5,994,791 by the Boston Permanent Charity Fund; and $4,194,669 by the California Community Foundation.

Philanthropic distribution from these funds rose to $2,021,890 in 1945 from $1,918,475 in the preceding year. The largest out-payments were those in New York, $567,349; Chicago, $351,211; Cleveland, $253,929; Boston, $250,715; and Hartford, $114,742.

Additional gifts to community foundations in 1945 totaled $5,342,010. The largest receipts were in Cleveland, $1,030,510; Hartford, $848,016; Chicago, $776,000; and Kalamazoo, $586,650.

In Mount Vernon, Ohio; Wilmington, North Carolina; and Rochester, Minnesota, new community trusts were established in 1945. These are composite foundations, created for the flexible administration of multiple charitable funds so that remedial action is facilitated if originally designated purposes become obsolete, impossible, or impracticable of execution.

The heads of the New York Community Trust, 120 Broadway, New York 5, New York, are: Winthrop W. Aldrich, Chairman Trustees' Committee; Thomas M. Debevoise, Chairman Distribution Committee; and Ralph Hayes, Director.

COMPTROLLER OF THE CURRENCY, Bureau of the. A Bureau of the U.S. Department of the Treasury which has general supervision over national banks; established 1863. Comptroller: Preston Delano.

CONCILIATION SERVICE, U.S. The function of the Conciliation Service, in the U.S. Department of Labor, is the settlement of labor management disputes through voluntary methods of conciliation, arbitration, and technical surveys. The Service handles strikes, lockouts, threatened strikes, and all types of controversies arising between employers and employees. With the termination of the War Labor Board and the labor relations divisions of the military and war agencies, the Conciliation Service is the only Federal agency, aside from those operating under the Railway Labor Act, responsible for maintenance of industrial peace throughout the country.

In addition to the seven regional offices located in Boston, New York, Atlanta, Cleveland, Chicago, Kansas City, and San Francisco, the Service maintains 23 branch and field offices located in other important industrial and commercial centers of the country. The Service now has a staff of more than 200 Commissioners of Conciliation chosen for their knowledge and experience in the field of labor-management relations. Any representative of labor, management, or the public can secure the services of a Commissioner of Conciliation by writing, wiring, or telephoning the Regional Director in the region in which the dispute occurs or by contacting the Washington office.

In an effort to obtain participation of labor and management groups, advisory committees, composed of an equal number of management and union representatives, have been established in a number of areas of the Service's activity. A national Labor-Management Advisory Committee was set up upon the recommendation of the President's Labor-Management Conference of November 1945 to counsel the Director of the Service on policy matters. Subsequently, labor-management advisory committees were established to advise the Technical Division and in each of the seven regions.

Arbitrators are appointed by the Service in cases where both the company and the employees agree to be bound by the decision rendered. The typical arbitration case is a dispute which the grievance machinery of the collective bargaining contract failed to resolve. Occasionally, also, arbitrators are requested by the parties to settle disputes arising during contract negotiations. Arbitrators are appointed by the Service on a per diem basis from lists approved by the regional Labor Management Advisory Committees. Except in unusual hardship cases the parties themselves pay the arbitrator's fees within an approved range. A study made in October 1946 indicates that the Conciliation Service leads all agencies, governmental and private, in the number of arbitrators appointed.

The Technical Division of the Service maintains a staff of 15 Technical Commissioners skilled in job and wage analysis. On the request of both parties to a dispute, a Technical Commissioner makes findings of fact in disputes involving incentive plans, merit rating plans, and intraplant inequities. Their findings are advisory in nature and not binding upon the parties.

The Program Division set up in early 1946 to carry out suggestions made by the President's Labor-Management Conference provides a variety of services to the operating divisions. Current Problems Conferences for Commissioners are held periodically in the field and in Washington, a variety of informational services are supplied, and the operating statistics of the Service are compiled and analyzed.

The Conciliation Service is currently called into about three-fourths of the strikes and lockouts in the country. Commissioners are particularly effective when they are called into a case before the dispute has reached the stage of a strike or lockout. Ninety percent of the threatened strike cases handled by Commissioners have been successfully settled without a work stoppage. From July 1, 1945 through June 30, 1946, the Service disposed of 18,840 cases including 8,294 strikes and threatened strikes involving over 5,000,000 workers. The facilities of the Service were used in all economic fields except those subject to the Railway Labor Act and were utilized by employees and employers in 48 states, the District of Columbia, Alaska, Puerto Rico, Hawaii, and the Virgin Islands.

EDGAR L. WARREN.

CONGREGATIONAL CHRISTIAN CHURCHES. The Congregational Churches date their beginning in America with the first settlement at Plymouth, Massachusetts, in 1620. Later the Mayflower Pilgrims merged with the later coming Puritans to form the Congregational Churches. In 1931 these churches merged with the Christian Church founded before the Revolutionary War to form the present denomination.

The denomination from earliest days has preached and taught democratic ideals and has sought to support and to extend these ideals in the common life. It has fostered schools, colleges, social agencies and the democratic way in both church and state.

The denomination includes 5,836 self-governing churches, linked together by voluntary ties of fellowship in common endeavor. In addition, there are 678 missionary churches of this fellowship in foreign lands. The membership of the churches in

the United States is 1,130,824 with 121,200 members of the mission churches, a total of 1,252,024. The roll of ministers includes 5,882 ordained persons of whom 3,111 are pastors, denominational officials 120, missionaries 101, educators 263, chaplains 433. The benevolent giving was $3,951,495, and the home expenses of the churches $19,301,-121. Total property was $171,892,927, and the invested funds of the churches total $31,225,155.

The American Board for Foreign Missions reports income of $1,327,800 with investments of $8,054,338; and the Board of Home Missions expenses of $1,626,636; and investments of $25,350,-525. The Annuity Fund income was $1,392,233 and investments were $11,341,814. The total income of all the national agencies from all sources was $6,232,247 and the investments were $52,-744,646.

The central office of the denomination is the General Council of Congregational Christian Churches, 287 Fourth Avenue, New York 10, New York.

CONSTRUCTION INDUSTRY. This great industry has sailed through rough and stormy seas during the early stages of the post-war period. It suffered from the general upset, from shortage of men and materials, from strikes and high prices, and from government restrictive orders. The expected steady increase in construction did not materialize, and planned programs and forecasts of progress were upset. Great expectations had been based on housing, to provide work for the construction industry and homes for the thousands of men coming out from the armed forces. There was much discussion and planning, but mass production of houses ready for occupancy was far below requirements.

From January, 1941, to June, 1946, construction wages increased 22 percent for skilled and 45 percent for common labor. The Bureau of Labor Statistics estimated the increase as 60 percent in the wages of skilled and common labor combined. But the 22 percent increase compares with 55 percent in manufacturing wages for skilled and semi-skilled labor, while the 45 percent compares with 61 percent for unskilled labor in manufacturing. Increase in prices of lumber and steel were 61 and 12 percent, respectively, while farm and industrial prices increased 96 percent. These trends in construction wages and prices may be compared with a 38 percent rise in the cost of living index, and do not encourage any thoughts of reductions in construction prices for labor and materials.

Construction employment reached a peak of 2,-879,000 in September, 1941 (before the United States entered the war), with 58 percent on private work and 42 percent on public work. But in 1942 the proportion on public work was 75 percent (or 1,950,000). In 1945, the total of all construction workers had dropped to 671,000, of whom only 14 percent were on public works.

Total construction for the United States in 1946 was estimated by the government in February as $1,400,000,000, and in July this estimate was raised to $1,700,000,000. Public construction had been relatively low, but to check the continuing rise in cost of construction (a condition that was seriously reducing the amount of work that could be done for a given amount of money), the government in August ordered a two-month moratorium on all new Federal construction. Work already under way was not affected. It was also ordered that from October 1, 1946, to April 1, 1947, there should be a reconsideration of all Federal projects ready for contract letting, in order to determine their economic standing and to decide as to their immediate necessity or postponement to a more favorable time. It was expected that State and local governments would take similar action. For the year 1946–1947, the government limited the

TABLE I—VALUE OF U.S. CONSTRUCTION
(*Engineering News-Record*)
(*Millions of dollars*)

	1946 Estimated	*1946 Actual*	*1947 Estimated*
Grand Total; all construction, public and private	5,500	10,750	12,000
Total engineering construction (recorded by EN–R)	3,300	5,375	6,540
CLASSIFICATION OF ENGINEERING CONSTRUCTION			
Public buildings	500	420	500
Industrial buildings	600	1,170	1,400
Commercial buildings	700	1,185	2,450
Highways and streets	650	820	980
Earthwork and waterways	200	340	340
Bridges, public and private	100	140	160
Sewerage and treatment plants	100	120	140
Water works and treatment plants	100	120	140
Unclassified; air bases, airports, shipbuilding yards, etc.	400	360	430
Total engineering construction.	3,300	5,375	6,540

total construction of its various agencies to $900,-000,000, but in October it raised this limit to $1,-200,000,000, under political pressure.

The original limit was wise, as times were not favorable for government expenditures. In August, the construction field was competing with other fields for materials and labor, a condition that overwhelmed all efforts at price control or stabilization. It appeared evident that the national economy (including the construction industry) could be stabilized by sharply restricting Federal expenditures when times are good, thus building up reserves of credit and work projects for a coming period when business becomes slack.

TABLE II—PROGRESS OF CONSTRUCTION VALUES
(*Engineering News-Record*)
(*Millions of dollars*)

	Construction	
	Total	*Civ. Eng.*
1945, Estimated	4,200	3,100
1945, Actual	3,500	2,289
1946, Estimated	4,900	3,300
1946, Actual	10,750	5,375
1947, Estimated	12,000	6,540

In view of the great and increasing importance of the construction industry, Congress, in 1945, authorized the organization of a Construction Division in the U.S. Department of Commerce. Its activities are in conducting statistical studies and research in economic problems, and it acts as a clearing house for information developed by various government agencies and by public organizations. An important development of the industry in recent years has been the handling of construction work on an all-year-round basis, instead of almost shutting up shop for the winter months or bad-weather seasons.

As to present conditions and the outlook for the future, predictions are more difficult than usual because so many government or Federal actions interfere with the logical or normal functioning of construction, and these Federal actions are unpredictable. However, the figures given in the accompanying tables, I to IV, have been prepared by *Engineering News-Record*, and are based upon its long and intimate knowledge of the industry. Table I shows the estimated and actual recorded expenditures for 1946, and the estimated expenditures for 1947. Table II shows the progress of con-

struction values for 1945, 1946, and 1947, and Table III gives the estimated annual expenditures at the end of a 5-year post-war term, or in 1949. In Table IV are given the geographical divisions of construction activities.

TABLE III—ESTIMATED ANNUAL VALUE OF POST-WAR CONSTRUCTION IN 1949 (FIVE YEAR TERM)
(*Engineering News-Record*)
(*Millions of dollars*)

	Total	*Civ. Eng.*
Water and Sewerage	750	550
Earthwork	525	350
Highways and Bridges	2,775	1,800
Unclassified	1,350	900
Mass Housing	1,500	1,500
1- and 2-Family Houses	750	....
Buildings; public, industrial, commercial	7,350	4,900
Total Civil Engineering	....	10,000
Total, all construction	15,000	....

For comparison with the classified figures of *Engineering News-Record* in Table I, there are given in Table V the summarized figures prepared by the Construction Division, U.S. Department of Commerce, in cooperation with the Federal Works Agency and the National Housing Administration.

TABLE IV—GEOGRAPHICAL DISTRIBUTION OF CONSTRUCTION VALUE IN 1946
(*Engineering News-Record*)

	Per cent
West of Mississippi	20
Far West	23
Middle Atlantic	24
Middle West	12
South	15
New England	6
Total	100

In sum, this Table shows an estimated expenditure of $10,702,000,000 for new construction in 1946, and a predicted expenditure of $13,181,000,000 for 1947. With maintenance and repairs added, the grand totals are $15,852,000,000 and $19,256,000,000 respectively.

A difference in totals of the two estimates for 1947 is due mainly to the fact that Table I covers only fairly large projects, while Table V includes

TABLE V—U S. CONSTRUCTION ACTIVITY
(*Federal Interagency Estimate*)
(*Millions of dollars*)

	1946	*1947*
Residential building; private and public	4,639	7,124
Non-residential building; private	3,240	2,187
Non-residential building; public	321	570
Farm	350	400
Public utilities	809	1,050
Military and naval	177	140
Highways	659	1,000
Sewer and water	171	300
Conservation and development	217	275
Airports	16	35
All others	103	100
Total new construction	10,702	13,181
Maintenance and repairs	5,150	6,075
Total construction, maintenance and repairs	15,852	19,256

urban and rural construction of all sizes and types, as well as maintenance and repairs. Furthermore, until near the end of 1946, the *Engineering News-Record* estimate for total engineering construction in 1947 was $7,500,000,000 instead of $6,540,000,000 (Table I). But by that time, resistance to the high prices was developing and there was a growing sentiment for balancing the budget, all tending to check the prospective construction program. Bringing the estimate down to a conservative $6,540,000,000 was effected by certain changes in the classified figures.

E. E. RUSSELL TRATMAN.

CONSUMERS' COOPERATIVES. The year 1945 marked another high point in the consumers' cooperative movement as regards membership, business, and value of goods produced. Operating reports, however, indicate that both local cooperatives and their central federations found 1945 conditions more difficult than those in any of the war years, and earnings were generally somewhat smaller than in 1944. Among the retail associations, the urban stores (generally handling groceries and meats only) found gainful operation more difficult than did the farmers' stores (which usually handle a wide variety of items). Petroleum associations on the whole had a relatively more successful year than did the store associations.

Credit unions, the business of which fell off seriously during the war years, had a slight loss in membership in 1945 (probably as a result of the closing of associations in liquidated war plants), but showed an increase in loans granted. They continued their unbroken advance in assets and capital.

Housing continued to be of outstanding interest, and many cooperatives for this purpose were formed throughout the United States. Because of supply shortages and inability (except by veterans' groups) to obtain priorities, very few reached the stage of actual construction by the end of 1946, though many acquired land. Medical care, another field of active cooperative interest, received impetus through the passage of a 1945 law in Texas authorizing the formation of cooperative hospitals in places of less than 2,500 population; some 20 hospital associations had been chartered by the middle of 1946. A number had also been organized in the Pacific Northwest. In Seattle the new medical-care cooperative merged with an existing doctor-sponsored plan; this step made available to cooperative members a 50-bed hospital and a staff of 18 physicians.

Student cooperatives providing rooms and/or meals began in 1946 to recover the ground they lost when the male students were drafted. Returned veterans were reported as forming purchasing, housing, and other cooperatives in many places. All of the war relocation cooperatives dissolved when those centers were closed. Reports indicate, however, that some of the Japanese-Americans who had participated in these associations were, upon their return to farming and other pursuits, joining local cooperatives or forming new associations of their own.

The most important event of the cooperative year was the national cooperative congress, held in September 1946. Its deliberations covered the whole range of cooperative effort in the consumer field. Among its most important acts were the transfer from the Cooperative League to National Cooperatives (the wholesale organization) of employee training, general educational work, and publicity in consumers' cooperation. This was intended to pave the way for the transformation of the Cooperative League into a federation of national organizations in various branches of the consumers' cooperative movement (distribution of commodities, credit, electricity, insurance, medical care, housing and recreation). A meeting of the board of directors of National Cooperatives previous to the congress, established as policy that in future all production on a national scale is to be carried on by National Cooperatives.

Underlining the increasing interest in international cooperation, a large delegation from the United States cooperatives attended the congress of the International Cooperative Alliance (its first

MEMBERSHIP AND BUSINESS OF CONSUMERS' COOPERATIVES IN 1945

LOCAL ASSOCIATIONS

Type of Association	Total Number of Associations (estimated)	Number of Members (estimated)	Amount of Business (estimated)
Retail distributive associations	4,550	1,760,000	$657,500,000
Stores and buying clubs	3,000	825,000	360,000,000
Petroleum associations	1,500	910,000	290,000,000
Other [a]	50	25,000	7,500,000
Service associations	602	369,200	12,356,000
Rooms and/or meals	180	18,500	2,700,000
Housing	60	2,700	1,600,000 [b]
Medical and/or hospital care:			
On contract	55	100,000	1,500,000
Own facilities	20	51,000	2,500,000
Burial: [c]			
Complete funeral	36	35,500	300,000
Caskets only	6	1,500	6,000
Other [d]	245	160,000	3,750,000
Electricity associations [e]	850	1,149,700 [f]	60,960,000
Telephone associations [g]	5,000	330,000	5,485,000
Credit unions [h]	8,882	2,838,034	210,885,783
Insurance associations	2,000	10,550,000 [i]	200,000,000

DISTRIBUTIVE, SERVICE, AND PRODUCTIVE FEDERATIONS

Item	All Federations	Wholesales			Service Federations	Productive Federations
		National	Regional	District		
Number of federations reporting	57	1	21	11	13	11
Number of member associations	(f)	20	3,585	241	1,177	187
Amount of business	$194,019,411	$6,755,900	$157,416,005	$11,217,941	$540,865	$18,088,700
Wholesale distributive	167,806,389	6,755,900	149,952,392	11,098,097 [h]	.....	.....
Service	4,285,897	.....	3,625,189	119,844	540,865	.....
Retail distributive	3,838,424	.....	3,838,424	(i)	.....	.....
Value of own production	60,577,789	1,898,000	42,476,831	797,873	.....	15,405,085
Net earnings, all departments	9,258,031	27,266	9,125,458	273,740	23,681	202,114 [m]
Patronage refunds, all departments	7,366,425	27,266	6,869,737	235,340	14,082	220,000

[a] Such as consumers' dairies, creameries, bakeries, propane gas associations, fuel yards, and lumber yards. [b] Gross income. [c] Local associations only; does not include associations of federated type (which are included with service federations) or funeral departments of store associations. [d] Such as cold-storage, water-supply, laundry and dry-cleaning, recreation, printing and publishing, etc., associations. [e] Data are for 1944. [f] Number of patrons. [g] Data are for 1936. [h] Actual figures, not estimates. [i] Policyholders. [j] Membership cannot be totaled, as some local associations are members of several federations. [k] Includes some retail business. [l] Included with wholesale business. [m] Loss.

since 1937) in Zurich. Among other actions, the congress established an international petroleum cooperative and expanded the powers of the existing International Cooperative Trading Agency.

FLORENCE E. PARKER.

CONTRACT SETTLEMENT, Office of. Contract terminations began early in the war production program, and the need for procedures to settle terminated war contracts soon became apparent. At first the contracting agencies of the Government, principally the War and Navy Departments, the Maritime Commission, the Treasury Department, and the Reconstruction Finance Corporation and its subsidiaries, developed their own procedures. However, the need for uniform methods soon made itself felt, and the Joint Contract Termination Board, under the Office of War Mobilization, was established by the principal contracting agencies. The basis of unified action to settle terminated contracts was elaborated in the *Report on War and Post-War Adjustment Policies*, published by Bernard M. Baruch and John M. Hancock, who had been appointed as the Advisory Unit for War and Post-War Adjustment Policies of the Office of War Mobilization. This Report stressed the need for speed in the settlement of war contracts and for fairness to the contractor and to the Government. Subsequently, action by various Congressional Committees led to the passage of the Contract Settlement Act.

The Contract Settlement Act of 1944, Public Law 395, 78th Congress, which became effective on July 21, 1944, established the Office of Contract Settlement as the policy-making agency to prescribe policies, principles, methods, procedures and standards for the contracting agencies. Subject to the supervision of the Office of Contract Settlement, the contracting agencies are responsible for carrying out the Act's objectives. Except for appeals, all contract settlement operations are carried out by the contracting agencies.

Robert H. Hinckley, a Vice President of the Sperry Corporation, New York, was appointed Director of Contract Settlement and assumed his duties on July 28, 1944.

As a first step, the Director provided for the continuance of the work which the Joint Contract Termination Board had under way. As a second step, he established an organization to perform the duties prescribed by the Act. This organization reflected the direction of the Act to utilize "the personnel and facilities of the contracting agencies and other established Government agencies" to the maximum extent feasible.

In addition to the Contract Settlement Advisory Board and Appeal Board, the OCS was divided into nine major units as follows: Terminations; plant clearance; interim financing; training; progress and statistics; public information; accounting; organization and procedures; and general counsel. To provide for effective cooperation with the contracting agencies, a system of advisory committees of the Contract Settlement Advisory Board was set up during the war. These standing committees paralleled organizational units of the Office of Contract Settlement. Each committee was established by the Director, who named a chairman from his own staff and asked each agency on the Advisory Board to designate a representative. The OCS was staffed by seventy-eight members at its wartime peak. During 1946, the personnel of the organization was reduced with the approaching completion of the settlement program and numbered nineteen on December 31, 1946.

While there are twenty-eight contracting agencies which may have war contracts subject to the Contract Settlement Act of 1944, the major burden of terminating and settling war contracts falls upon five of them: War and Navy Departments, the Maritime Commission, the Treasury Department, and the Reconstruction Finance Corporation and its subsidiaries.

Progress in 1946. Prior to 1946, the Office of Contract Settlement issued twenty regulations dealing with such matters as interim financing, plant clearance, pretermination agreements, standard settlement proposal forms, retention of records, accounting practices and other subjects. The issuance of these regulations facilitated the prompt settlement of terminated war contracts. During 1946, the OCS made three amendments to these regulations. Two of the changes dealt with the rules of practice and procedure for the Appeal Board of the Office of Contract Settlement. The other amendment dealt with the Termination Cost Memorandum on settlement expenses.

Reconversion of industry from war to peace was not hampered either by lack of adequate financing on terminated contracts or by failure of the Government to clear contractors' plants. Partial payments, guaranteed loans and utilization of advance payments proved more than adequate to finance industry in transition. Partial payments were the most usual financing obtained by terminated war contractors. At December 1946, over 3 billion dollars had been paid out by the Government in this type of financing. Plant clearance, both of termination inventories and of Government-owned equipment, proceeded smoothly throughout the year. In only a small percentage of cases did Government agencies require more than sixty days to clear plants. At December 31, 1946, completed clearances were brought to 7.3 billion dollars or 96 percent of the total job.

Representatives of industry have expressed their satisfaction with the way in which the Government handled contract settlement matters. By December 31, 1946, 158 appeals had been made by contractors to the Appeal Board of the Office of Contract Settlement in the settlement of more than 316,000 terminated war contracts. The reason for this negligible amount of litigation was attributed, in a large part, to the vast planning which went into the Contract Settlement Act of 1944 and policies and procedures thereunder.

Robert H. Hinckley retired as Director of Contract Settlement on January 31, 1946, and Colonel H. Chapman Rose, GSC, Deputy Director, was his successor. On October 1, 1946, Roger L. Putnam, former Mayor of Springfield, Massachusetts and wartime Deputy Director of the OCS, assumed the duties of Director. Executive Order 9809, issued December 12, 1946, transferred the functions of OCS to the U.S. Treasury Department, and the functions of the Director to the Secretary of the Treasury.

The work growing out of the Government's contract terminations and settlements during World War II should be carried to completion in 1947.

The accompanying table gives the status of contract settlement as of December 31, 1946.

ROGER L. PUTNAM.

COPPER. With copper mine, smelter, refinery and brass mill production sputtering fitfully during the first seven months of 1946, shortage of finished copper products constituted a major problem to United States manufacturers most of the year.

Before settlement was obtained in an epidemic of strikes, which subsided in June, production of mines and smelters dropped about 50 per cent; refineries, 65 percent; brass mills, 12 percent; and copper wire mills, 5 percent. Foundries were less affected, but experienced difficulty in securing sufficient scrap and ingot.

Production of United States mines for the year was close to 602,355 short tons (1945: 772,894 short tons). An important factor in the drop was a strike lasting five months at the Bingham Canyon, Utah, mine of Utah Copper Co., the world's largest, which was settled the last week in June. Also seriously affected by strikes were Anaconda Copper Mining Co. mines in Montana during April, and mines in Arizona, where work resumed late in June. Michigan mines operated on a greatly reduced scale in May and June because of shortage of coal resulting from the nationwide bituminous coal strike. Thus the nation's principal producing areas all were seriously affected. Labor difficulties on a comparable scale affected smelters, refineries and rolling mills. Strike settlements in the mines were sparked by an agreement by the government to authorize increased prices and adjusments in payments under its Premium Price Plan to mines granting wage increases. Effective June 3, the Office of Price Administration advanced the ceiling price on copper to 14⅜ cents per lb. from 12 cents, the price in effect since the institution of price ceilings.

Commercial transactions in the industry were confused during the period of lapse of price control from July 1 to 26. Many smaller mines halted operations because of uncertainties over the future of the Premium Price Plan (See 1944 and 1945 YEAR BOOKS), involved in the same legislation, which had provided them a bonus for over-quota production. With lifting of price control November 10, the price of copper jumped immediately to 17.5

STATUS OF CONTRACT SETTLEMENT

(All Terminations and Settlements; All Reporting Agencies)

	TERMINATED		*SETTLED*		*PENDING*	
Date	*Number of Contracts (approximated to nearest thousand)*	*Cancelled Commitment Value (approximated to nearest billion)*	*Number of Contracts (approximated to nearest thousand)*	*Cancelled Commitment Value (approximated to nearest billion)*	*Number of Contracts (approximated to nearest thousand)*	*Cancelled Commitment Value (approximated to nearest billion)*
Dec. 31, 1944	128,000	$25.5	117,000	$13.9	11,000	$11.6
April 30, 1945 (V-E Day May 7)	145,000	29.7	137,000	19.4	8,000	10.3
June 30, 1945	165,000	37.0	150,000	22.3	15,000	14.7
July 31, 1945 (V-J Day Aug. 14)	174,000	38.5	157,000	23.6	17,000	14.9
Aug. 30, 1945	271,000	60.9	165,000	24.7	106,000	36.2
Dec. 31, 1945	303,000	63.9	250,000	30.4	53,000	33 5
June 30, 1946	317,000	65.2	305,000	54.2	12,000	11.0
Sept. 30, 1946	315,000	65.3	312 000	59.0	6,000	6.3
Dec. 31, 1946	319,000	65.4	31[illegible] 000	61.8	3,000	3 6

cents per lb., and reached 19.5 cents by year-end.

As in previous years, Arizona, Utah and Montana were the leading states in mine production.

Interruptions in production were reflected in severe shotages of copper wire and cable. Manufacturers of electric motors and transformers were forced to restrict operations, and the otherwise complete household appliances in turn were held from completion. The automobile industry also was indirectly affected.

Some of the shortage of refined copper, particularly during the strike interruptions was made up by sales to private industry from the government stockpile, which declined as a result from 499,900 tons at the end of 1945 to 232,613 tons August 31, 1946. Refinery output, from foreign and domestic ores was 904,000 tons (1945: 1,108,599 tons). Imports also were affected during the period of uncertainty over price legislation. A government purchase program, attempting purchases abroad, was unable to secure desired commitments. Labor troubles and competitive purchasing by Great Britain in Chile, the principal foreign source, reduced actual imports. In the world market generally, the United States found itself competing with world reconstruction demands. Heavy British commitments were made for Rhodesian and Canadian production. Imports into the United States of unmanufactured copper were 400,000 tons in 1946 (1945: 853,196 tons).

Consumption of copper decreased sharply in comparison with war years (1945: 1,542,403 tons of new copper) although the approximate 1946 total of 1,033,000 tons was high for a peacetime year.

CHARLES T. POST.

COPYRIGHT. Registrations for fiscal year 1945–1946, according to the report of the U.S. Register of Copyrights, numbered 202,144, as compared with 178,848 for the preceding year. Of these 47,878 were classed as books, but included pamphlets, leaflets, and contributions in periodicals. Those printed in the United States numbered 44,365; those printed abroad in a foreign language, 3,513; while the remainder, 610, registered for ad interim copyright. The chief classes of the remaining registrations were: Periodicals (numbers) 48,289; Musical Compositions 63,367; Dramatic or Dramatico-Musical Compositions 5,356; Works of Art, Models or Designs 3,094; Drawings or Plastic Works of a Scientific or Technical Character 1,777; Prints and Pictorial Illustrations 5,384; Maps 1,304; Lectures, Sermons, Addresses 1,129; Motion Pictures not photoplays 1,250; Motion Picture photoplays 774; Reproductions of Works of Art 317; Commercial Prints and Labels 7,975. The renewals numbered 12,483 as compared with 11,337 in the preceding year. The fees applied during the year amounted to $379,738. The total number of separate articles deposited during the fiscal year ended June 30, 1946, was 305,049. The gross receipts of the Register's office for the fiscal year were $405,740.58; the total expenditures for salaries, $350,150.33; and for supplies, postage and photoduplication, $2,-843.33.

CORSICA. A French island department in the western Mediterranean, 100 miles southeast of Nice. Area, 3,367 square miles. Population (1936), 322,-854. Chief towns: Ajaccio (capital), 38,000 inhabitants; Bastia, 52,208.

COSTA RICA. A republic of Central America. Area: 19,238 square miles. Population: 725,149 (official estimate, December 1944). Capital: San José.

Costa Rica has low tropical coastal plains and a mountainous interior. The Meseta Central, a highland plateau of 3,000 to 4,000 feet elevation, enjoys a temperate climate and is the center of the country's population and industry.

The People. According to the census of 1927, about 80 percent of the people of Costa Rica are of almost pure Spanish descent; 14 percent mestizo; 4 percent Negro, and 2 percent Indian. Seventy-five percent live in the Meseta Central. The largest cities are: San José, 75,000; Heredia, 10,000; and Alejuela, 10,000.

Spanish is the official language, but English is taught in schools throughout the country and is spoken widely in the eastern lowlands. Roman Catholicism is the state religion.

It is estimated that 82 percent of the total population is literate. In 1943 there were 797 primary schools with a total enrollment of 75,150; 49 secondary schools with a total of 7,251 students; and the National University of Costa Rica had a student body of 820. Primary education is compulsory. Under the school law of 1945, matriculation and tuition in the Government's secondary schools is to be free to all students whose parents or guardians own no other property than the house in which they live.

Government. Under the Constitution of 1871, Costa Rica is a centralized republic of 7 Provinces. It has a unicameral legislature of 45 members, elected for 4-year terms, one-half being elected every two years. The President is elected for a 4-year term, and is assisted by a Cabinet of 9 ministers. President Teodoro Picado Michalski was elected on Feb. 13, 1944, and assumed office on May 8, 1944.

Events, 1946. A vigorous political campaign for the election of twenty-three legislators, one-half the unicameral Congress, closed on February 1 with more than 150,000 registered voters casting a ballot. The opposition to the Picado Administration was led by former President Leon Cortes, publisher of *The Diario de Costa Rica*, Otilio Ulate and Dr. Antonio Pena Chavarria. The election results gave the Government eleven seats, the opposition ten and the Communists two.

In early September Foreign Minister Julio Acosta signed an agreement with El Salvador abolishing passports and substituting Central American tourist cards.

Because of dissatisfaction with the United States price ceiling on coffee, Costa Rican producers decided in late September to ship at least 30 percent of the 1946 crop to Europe. Previously almost 90 percent of the crop was sold to the United States. The coffee crop, however, suffered extensive damage in October because of a locust plague that also ruined large portions of the rice crop.

In an almost unanimous vote, Congress approved a motion to have the Costa Rican representatives at the United Nations support those members who desired to break relations with Spain. At the same time the Foreign Minister instructed all consuls in Spain to maintain lists of all German sympathizers so that their admission to Latin America via Costa Rica could be prevented.

The Latin American Federation of Labor, meeting in mid-December in San José, approved a resolution charging the American Federation of Labor with being an instrument of "Yankee" imperialism. The conference also condemned the Clayton plan for the abolition of tariff barriers and President Truman's continental defense plan.

National Economy. Agriculture and agricultural processing are the leading occupations of Costa

Rica. Coffee, bananas, and cacao are the most important crops. There are also small lumber and pastoral industries. Total production of green coffee beans during the 1945 crop year amounted to 30,000 metric tons. Normally Costa Rica produces between 100,000 and 120,000 bags (150 pounds net) of cacao annually, and exports about 80 percent. Banana cultivation is one of the main industries of the country; practically all of this crop is exported to the U.S.

Manufacturing in Costa Rica includes plants for coffee-cleaning and for grinding coffee and cacao, rice mills, sawmills, sugar mills, shoe factories, extraction of edible oil, cotton textiles, and handicraft.

Foreign Trade. In proportion to its population Costa Rica has a larger foreign trade than any other Central American country except Panama. In 1945 exports totaled 11,611,709. Exports of coffee during the 1945 quota year totaled $7,488,761. Banana exports in 1945 totaled $2,232,679. Coffee exports accounted for about 64.5 percent and banana exports for about 19.2 percent of the total exports. Costa Rica exported gold bars in 1945 valued at $87,231. Other exports were: fruit, vegetables, honey, hides, and skins.

In 1945 Costa Rica's imports totaled $26,948,122, consisting chiefly of manufactured products and foodstuffs.

COURT GAMES. Robert Grant 3d of Oyster Bay, Long Island, added considerable lustre to his fame as the greatest racquets player in America when he won the national court tennis and racquets titles last year. He became the first man to take both championships in the same year since Eustace H. Miles, an Englishman, turned the trick in 1900.

Grant, who had an aircraft carrier shot from under him in the war, defeated Robert Gerry Jr. of Wheatley Hills, Long Island, 6–2, 3–6, 6–1, 6–4, in the court tennis final a few weeks after annexing the racquets laurels. The youthful New Yorker and Clarence C. Pell Jr. renewed their doubles partnership and added to the skein of triumphs they started in 1936 when they carried off the United States racquets championship. Grant maintained his domination of all singles opposition when he turned back J. R. Leonard, ex-national ruler, in the final of the Tuxedo Gold Racquet tourney to gain his second leg on that coveted prize.

A number of other top-notch court events returned to the calendar, among them being the national Class A squash tennis tournament, not held in four years. Frank R. Hanson, the Columbia University Club ace, won that test when he defeated H. Robert Reeve of the Bayside T.C., the 1942 victor. The triumph gave Hanson just about a sweep of the season's major squash honors, for he previously had won the New York A.C. and Yale Club competitions.

Lester Cummings of the Field Club of Greenwich took the big prize in squash racquets when he halted Al Ramsay of Cleveland, 1940–41 champion, for national professional laurels. A United States team, captained by Seymour Knox of Buffalo, recorded its sixteenth triumph in the 25-year-old Lapham Cup series when it routed a Canadian squad, 13–2. The national Intercollegiate Squash Racquets Association title was won by Glen Shively of Yale.

THOMAS V. HANEY.

CRANBROOK FOUNDATION. A foundation in Bloomfield Hills, Mich., established in 1927 for the purpose of adding to and strengthening educational and cultural facilities within the State of Michigan. It is developing a cultural center at Bloomfield Hills in which are included Brookside School Cranbrook, a day school for children from kindergarten through the sixth grade, Cranbrook School and Kingswood School Cranbrook, boarding and day preparatory schools for boys and girls respectively, Cranbrook Academy of Art, Cranbrook Institute of Science and Christ Church Cranbrook. Chairman of the Board of Trustees: George G. Booth.

CRETE. A mountainous island in the eastern Mediterranean, forming the most southerly part of Greece. Crete was occupied by German armed forces during May, 1941, and was recaptured by Allied armed forces in 1945. During 1946, the British Government established internment camps on the island for the detention of Jewish refugees intercepted while attempting to enter Palestine from Europe. It is 160 miles long and from 6 to 35 miles wide. Area, 3,235 square miles. Population, 441,687 on Jan. 1, 1939. Chief towns: Canea, the capital, 26,604 inhabitants; Candia, 33,404; Rethymnon, 8,632. There are good harbors along the northern shore, particularly at Suda Bay, but the south shore has no satisfactory ports.

CRIMINOLOGY. Human activity involves a steady process of adjustment of individual personality to the ever-increasing, ever-changing elements of environment. The human make-up is so complex, the differences in environmental influences so wide-sweeping that it is difficult to explain criminal behavior by any one factor. It is well recognized that crimes differ in seriousness, in nature, in apparent motivation, and in the kinds of behavior used to commit them. They spring from different types of personality and various kinds of situations. These changes in the elements which go to make up crime argue well for the contention that there is no one cause of crime.

The shortcomings of human beings have manifested themselves in all types and forms down through the centuries. Anger, jealousy, greed, avarice, and scores of other human aberrations have made crime an ever-present condition. A study of causative factors in crime necessarily must include the study of man and the adaptation of every personality to the varying elements of environment.

There has been some advancement made in determining causes of crime. It would appear that the best approach to the problem lies through a study of the individual criminal in relation to all the social and environmental factors which have an influence upon his personality. Such research considers the criminal or delinquent not only as an individual but also as a member of many groups—the community, the family, the work group, the play group, and others—each of which has provided him with values and attitudes with which he faces the outside world. Study patterned along these lines has eliminated one-sided explanations of crime, which have not been particularly valuable.

While the value of research work into mental and physical characteristics of criminals cannot be discounted, it is well known that a study of the development of a wrongdoer produces sound data. Definite steps have been made in determining some of the influences which contribute to the creation of the adult professional criminal. Criminal careers usually have their beginnings in childhood and early youth, and they are marked by a progressive gravity in the offenses committed. The Federal Bureau of Investigation and other law enforcement

agencies possess convincing evidence of influences which pave the way for antisocial behavior.

The failure of the family to create within the home an effective educational medium, the exposure of youth in communities to crime-infected areas and contacts with delinquent groups or gangs, the lack of community action to meet the problem of delinquent behavior, and many other influences are known to originate significant factors in the crime situation.

The effect of economic factors in crime causation cannot be overlooked. Times of depression are times of unemployment which means economic distress for thousands of workers. The volume of crimes against property increases during periods of economic instability. The answer may be in the fact that some persons refuse to accept a changed material status which prevents them from enjoying all the things to which they were accustomed in normal times.

The power of the venal politicians to influence the processes of law enforcement accounts to some degree for the gravity of the criminal situation. It is generally recognized that parole and probation are constructive and desirable systems in the administration of justice. The poor and inept exercise of such systems constitutes a menace and hindrance to a program of judicial administration. All such systems should be governed by carefully selected, well-qualified, and properly trained personnel and should be free from corrupt political authority or manipulation.

Social, economic, and political factors in the light of a nation's development, therefore, are considerations in the study of crime causation.

Although it is known that there has been no formula established which would completely prevent crime and delinquency among people of any age, it should be conceded that governments have no more serious and important responsibility than the protection of society. This is the first duty of law enforcement. The effectiveness of the police against criminal elements has been hampered by the indifference of citizens. People who leave their homes and automobiles unlocked or who are notoriously careless with their personal effects make it easy for the thief to commit crime. An important agency for crime prevention is education—the enlightenment and illumination of the mind to a sense of civic responsibility and justice. Law enforcement, through various media, is attempting to educate people to assume their duties in the matters of crime prevention and law enforcement.

Education has bolstered the profession of law enforcement. The Federal Bureau of Investigation founded the FBI National Academy in 1935 in order to provide a program of training for local and state law enforcement officials and officers. With the completion of the Thirty-third Session of the Academy on October 4, 1946, 1,470 selected officers from every state in the United States as well as from Mexico, the Panama Canal Zone, Alaska, China, the Philippine Islands, Puerto Rico, England, Canada, and Newfoundland have made the benefits of FBI training available to approximately 100,000 of their associates. At the request of local authorities, the FBI cooperated in 773 general police training schools, which were attended by about 38,650 officers during the 1946 fiscal year. During the same period, some 100 police executives and officials were present at fifteen state-wide police administration schools. Two series of FBI Law Enforcement Conferences also were held during this time. A grand total of 53,588 officers attended these conferences.

The development and expansion of techniques and methods in law enforcement have aided the police to discharge more proficiently their obligation to enforce the law, and prevent crime. Law enforcement in the United States has the best statistics on a national basis showing the extent, scope, fluctuation and trend of crime, including juvenile delinquency. The Uniform Crime Reports prepared by the FBI from monthly and annual reports submitted by law enforcement agencies throughout the nation serve as an index to crime trends and the extent of crime in the United States.

Coordinating their activities on a nationwide basis, acquainting themselves constantly with the focal points of criminal infection in the various communities, performing their regular duties on a twenty-four-hour-day basis, usually having the first contact with the juvenile delinquent, and extending their knowledge as to the methods employed by all types of criminals regardless of age, law enforcement today is faced with retarding influences which prevent the most effective offensive against the causes of crime. Inadequate salaries and insufficient advantages for police personnel, a shortage of personnel in police departments, the failure to seek police opinions concerning proposed legislation affecting law enforcement, crime prevention and the handling of juveniles, have impeded law enforcement from fully carrying out crime prevention work.

It is the responsibility of the community to keep alive the fact that prompt detection, vigorous and quick prosecution, and the adequacy and certainty of punishment fitted to the crime and the criminal are definite deterrents to the commission of crime. It is also the obligation of the community and every member of it to impart, by precept and example, the necessity for proper respect for the laws of the nation, the state, the county, and the municipality. Such a program would channelize human behavior along the lines needed to bring about an appreciable reduction in the volume of crime.

JOHN EDGAR HOOVER.

CROSS-COUNTRY RUNNING. Robert Black, Rhode Island State freshman, stole the show in the national A.A.U. hill-and-dale championships last Fall, scoring a sterling triumph in the junior run, and coming back a week later to capture the senior title. James O'Leary, Holy Cross harrier, was runner-up on both occasions.

The senior run was marked by the return to competition of Don Lash, one of the country's best distance men of all time. The ex-Indiana star, who had won the event seven straight times, but whose F.B.I. work had kept him out of racing the past six years, finished seventh in the title chase.

Team honors in the senior test were retained by the New York A.C., and New York University paced by Frank Dixon, a consistent scorer all season, won the junior laurels.

Curtis Stone of Penn State stood out in college cross-country, annexing the Intercollegiate A.A.A.A. crown and finishing second to Quentin Brelsford of Ohio Wesleyan in the National Collegiate A.A. grind. Black, the double winner in A.A.U. championships, added to his prestige with a good second in the I.C.4-A event. A well-balanced N.Y.U. outfit, which previously had won metropolitan intercollegiate honors, took the I.C.4-A team title and was runner-up to Drake, defending champion, in the N.C.A.A. race.

Gerard Cote, Quebec star, led home a crack field in the national A.A.U. marathon, while the Millrose A.A. was team victor in the grueling race of

26 miles, 385 yards. Stylianos Kyriakides, a true son of the Grecian immortal, Pheidippides—who ran the first marathon—came over from war-ravaged Athens to carry off honors in the Boston Athletic Association's fiftieth anniversary run. Competing in the most capable marathon field ever gathered for the classic, Kyriakides closed with a burst of speed to win in 2:29:27. Johnny Kelley, the 1945 winner, who raced shoulder to shoulder with Kyriakides for almost 25 miles, crossed the finish line two minutes back of the Greek star to annex second place.

THOMAS V. HANEY.

CUBA. An island republic of the West Indies. Area: 44,217 square miles. Population: 4,778,583 (1943). Capital: Havana.

About one-fourth of the island is mountainous; the remainder is composed of lowlands, terraces, and gentle slopes. There are no extremes of temperature and little variation between summer and winter. The rainy season is from May to November.

Population. Sixty-five percent of Cuba's population belong to the white race; Negroes, mestizos, and other races compose the remainder. Density of population ranges from 48 persons per square mile in the Province of Camaguey to 389 in the Province of La Habana. The largest cities are: Havana, 676,376; Marianao, 114,743; and Santiago de Cuba, 120,577.

Spanish is the official language of Cuba. The predominant religion is Roman Catholic.

It is estimated that from 60 to 70 percent of the population over 10 years of age is literate. In 1941 there were 5,982 primary schools teaching a total of 537,756 children; 168 secondary schools had a total enrollment of 27,423 in 1938–39. The University of Havana had 13,940 students in 1941.

Government. Cuba, under the Constitution of 1940, is a centralized republic of 6 provinces. It has a bicameral Congress; a Senate of 54 members, and a House of Representatives of 114. The Congress convenes twice a year, in March and September, for not less than 60 days. The president is elected for a 4-year term and is aided by a Cabinet of 17 ministers, 4 without portfolio. Dr. Ramón Grau San Martín was elected President on June 1, 1944.

Events, 1946. Sugar, the mainstay of Cuba's economy, developed into a live issue during January and February when President Grau San Martín proposed to use part of the profits from the export of sugar to finance a governmental program for building schools. Except for 250,000 tons all Cuba's sugar exports went to the United States at 3.675 cents a pound. The remaining 250,000 tons were placed on the world market and sold at 8.5 to 9 cents a pound. The President suggested that the Government purchase the world allotment at the United States price, sell it on the world market and use the profit for federal expenditures.

Vigorous opposition to the proposal was heard from the National Cane Planters Association, who claimed that the profits were needed to improve field conditions and import new machinery. Unless this were done, they said, sugar planters in Cuba would not be able to produce cheaply enough to compete in the future world sugar market.

The President's proposal was supported by Cuba's Communist party which was staging its Third Annual Assembly in Havana. On February 15 the Council of Ministers approved the Presidential decree on the world market sale of sugar.

During the Communists' meeting, motion was passed condemning United States imperialism and plans were outlined to unify Latin America in resisting this "imperialism." At the meeting the Communists announced new efforts to organize the masses and increase the scope of their educational program, with particular attention to youths, of whom 50,000 were already organized, according to party leader Blas Roca. The Communist party of Cuba was recognized as one of the best disciplined parties in the Western Hemisphere. With 151,000 members, the party is the most potent force in organized labor, owns one of Havana's larger newspapers (*Hoy*), controls the voting balance in the Senate and exerts considerable influence in the Ministry of Labor.

In return for the purchase of sugar at a price below the world market figure, the United States agreed to guarantee in 1946 shipment to Cuba of 1,200,000 tons of wheat flour, 60,000,000 pounds of lard, 75,000,000 pounds of rice, 25,000,000 pounds of vegetable oils, 24,000,000 pounds of tallow and unspecified quantities of petroleum and its by-products. All sales were subject to 1942 price levels. On February 6 Cuba announced that 20,000 tons of sugar from its 1946 crop would be reserved for the United Nations Relief and Rehabilitation Administration.

After seven months of negotiations, the United States announced on April 1 that all military bases built by the United States in Cuba during the war would be relinquished on May 20. The agreement did not affect the naval base at Guantanamo which was ceded to the United States in 1902.

An incipient rebellion was quashed on May 17 when Government forces captured non-commissioned officers who attempted to lead a group in the capture of Camp Columbia, a military reservation. Reports on the "rebellion" from Government sources gave no details or information on the number and names of those captured. On June 8 Chief of Staff General Genovero Pérez said that the soldiers arrested in the attempted coup would be released and discharged from the army.

President Grau San Martín's leftish *Auténtico* party and Communist supporters appeared to win a decisive victory in the June 1 elections at which one Senator, half (sixty-six) the House of Representatives, 126 mayors and 2,000 councilmen were elected. The mayoralty of Havana was won by Dr. Manuel Ferandez Supervielle, the *Auténtico* candidate, who polled more than twice the number of votes of his opponents, the Republican-Democrats' Dr. Raul Menocal, who ran for re-election, and the Liberals' Dr. Carlos Miguel de Cespedes. In the House of Representatives the *Auténtico* party and the Communists achieved a majority control. Previous to the election, the *Auténtico* and Communist parties ruled the Senate but were a minority in the House.

Revision in the Cuba–United States sugar agreement was made in early July to include an "escalator" clause by which the price paid will rise at a given ratio to the cost-of-living index in the United States. The clause reportedly was included on Cuba's insistence to satisfy her that the money received would purchase the same quantity of goods in the United States a year in the future as the prevailing prices assured.

During July Communist denunciations of United States "imperialism" grew more vigorous. Lazaro Pena, Communist leader of the Confederation of Cuban Workers, asserted that his party would side with the Soviet Union against the United States and Great Britain in the event of an "imperialist war." Regarding Cuba's national politics, Pena said that the party supported the Grau San Martín

administration because it recognized the interests of the workers. The friendly relations between Pena and the President were evident in mid-July when both addressed a labor rally of 30,000 from the Presidential palace.

A wave of killings that reached 48 since President San Martín took office in 1944 aroused such mounting public indignation that Gen. Aberlardo Gómez, second in command of the army, was appointed chief of the National Police. The victims usually were strongly linked with the Machado and Batista regimes and their deaths were attributed to the work of revolutionary groups who suffered under the dictatorial governments of the two former Presidents.

After Cuba had arranged for the increase in the price of sugar to the United States, President San Martín announced that the Government would take the price differential and use it to subsidize food imports. To stem the storm of protest that arose from the sugar owners, the Government appointed a committee to study a suitable plan. During December the Government abandoned its plan to seize the price differential profits. Because of the rise in sugar prices, Cuban sugar workers were given $17,500,000 as an advance on the increase due on their 1946 wages. The workers' wages are pegged to prices.

National Economy. Cuban economy is dependent on sugar and tobacco. More than half of the persons gainfully employed are engaged in agriculture, and of these, 70 percent work in the sugar industry. The 1945 sugar crop amounted to 3,920,000 short tons. This represented a drop of 30 percent from the 1944 production figure. The decrease was due to a severe drought. Tobacco is Cuba's second crop in export importance. The 1945 crop of 67,000,000 pounds was the largest since 1931, and over 50 percent larger than the 1943 crop. Other important Cuban crops include corn, grown chiefly for domestic consumption; pineapples, bananas, and henequen, which are exported.

Cuba's most important manufacture is the production of sugar from cane. Tobacco manufactures are also important, and other products include: rope and cordage, shoes, cement, paint, and agricultural tools and implements.

Foreign Trade. Cuba's foreign trade totaled $648,860,236 in 1945, over 25 percent more than the total for 1943. Exports were valued at $409,924,729. Of total exports in 1945, the United States took 78.8 percent, valued at $323,330,537, a decrease of about 14.9 percent compared with the value in 1944. Cuban exports to Europe were valued at $55,813,572. Exports of sugar and other cane products in 1945 were valued at $243,000,000. The value of tobacco exports reached $50,400,000 in 1945.

Cuban imports in 1945 reached a total value of $238,935,507, the highest since 1929, exceeding the 1944 figure by 14.5 percent. Of the total, the United States supplied 74.4 percent, valued at $187,962,683. Imports from Europe were valued at $12,396,038, imports from Asia, $5,516,819. Cuba's chief imports are: foodstuffs, textiles, manufactured products, machinery and other equipment.

JOSEPH P. BLANK.

CUSTOMS, Bureau of. The end of the second world war did not permit the immediate resumption of prewar trade although it did relieve the Customs Service of many of its wartime duties. After V-J day, particularly, most of the restrictions on travel were discontinued and the export restrictions in some cases removed. As the year progressed European countries which had been blacked out from trade for years began again to send some of their products to the American market, which resulted in a progressively increasing volume of business, and in larger collections than for any year, except one, since the passage of the present Tariff Act in 1930.

Customs Collections. Total collections during 1946 aggregated $588,034,507, an increase of 4.8 percent over the total for the previous year, but considerably less than the all time high ($757,251,316) in 1944. Actual customs collections, however, in the form of duties and miscellaneous receipts aggregated $440,725,085, an increase of 23.1 percent over collections in the preceding year and $6,466,047 more than in 1944. Collections for other agencies, which consisted chiefly of Internal Revenue taxes on imported liquors and wines, were much less in 1946 than in either of the two preceding years due to decreased importations of alcoholic beverages after the removal of limitations on the manufacture of distilled spirits in this country. The general trend of customs collections during the year was upward, from a seasonal low of $29,030,851 in September to a high of $45,487,295 in April. This rise was not continuous, recessions occurring in December, February, and June with successively higher peaks in October, January, and April. The collections for each quarter during the year exceeded those of the previous quarter.

Wool and wool manufactures, which have been the largest single source of customs revenue during each of the past six years, continued to lead all of the other tariff schedules in this respect, accounting for $165,206,165 or 38.5 percent of the total duties collected in 1946 and far exceeding collections from this source during any previous year in customs history. Duties on spirits, wines, and other beverages continued to decline, the total from this source in 1946 ($43,637,160) reducing the rank of this tariff schedule to fourth in importance. Duties on agricultural products, on tobacco, and on sugar were also smaller than during the previous year, the small amount of revenue derived from sugar being due to the admission duty free, under the terms of Executive Order 9177, of most of the sugar brought from Cuba and other countries. All of the other schedules of the tariff act yielded increased revenue as commodities from Europe and the Orient again reached the American market.

The war's end caused considerable changes in the territorial sources of customs revenue. Although duties on European goods were far from reaching their prewar level, they aggregated $100,757,579 in 1946 or 23.5 percent of the total duties collected and were the largest source of customs revenue, exceeding the amount of duties collected from either North and Central America or South America which were the leading sources of customs revenue during the war years. Switzerland was the most important European source of customs revenue due to the very large shipments of watches and watch movements received from that country. For the first time in customs history, Australia led every other country in the world, as the largest single source of customs revenue, due to the heavy volume of wool received from the Antipodes. Although Canada ranked second in importance as a source of customs revenue in 1946, a smaller amount of duties was collected on Canadian goods than in the previous years. Third in importance was Argentina, another heavy wool exporting country, while Cuba, due to the admission of much of its sugar duty free, was only sixth

in importance in 1946 as a source of customs revenue, falling behind Switzerland and United Kingdom which ranked fourth and fifth, respectively.

Volume of Business. Entries of merchandise were much more numerous during the past year and border traffic was much heavier than in 1945. It is noteworthy, however, that rail traffic declined while automotive, vessel, and air travel to foreign countries increased. 958,156 persons arrived by air from foreign countries during the past year compared with 18,798 thirteen years ago.

Law Enforcement. As a part of the enforcement of customs laws a considerably larger number of seizures was made than during any year since the repeal of the Eighteenth Amendment. A part of the increase in the number of seizures was due to increased tourist travel, which was reflected in large increases in the value of jewelry, furs, and wearing apparel seized, and in part to the larger number of seizures of liquor, narcotics, and other prohibited articles during the past year.

W. R. JOHNSON.

CYPRUS. A British island colony in the eastern Mediterranean, 40 miles from the Anatolian Peninsula and 60 miles from the Syrian coast. Area, 3,572 square miles. Population (1944 estimate), 424,656. Capital, Nicosia (28,186). The administration is in the hands of a governor, assisted by an executive council. The legislative council was abolished in 1931 and the constitution suspended. There is an informal advisory council.

The majority of the inhabitants speak a Greek dialect and profess the Greek Orthodox faith. About one-fifth are Turkish-speaking Moslems. There are small Maronite and Armenian minorities. The educated classes speak English and French. Each religious group has its own schools, and the primary schools are under government supervision.

The budget estimates for 1945 were: revenue £2,833,477; expenditure £3,394,075.

One of the first acts of the new British Colonial Secretary, Arthur Creech Jones, was to announce in October, 1946, that the 18 trade unionists serving sentence for political agitation would be released. This was followed by the announcement of a new constitution, to be discussed by a special Consultative Assembly of representative Cypriots. Laws preventing the free election of a new archbishop are to be repealed and persons deported from Cyprus for their part in the 1931 disturbances will be permitted to return. The appointment of Lord Wister as Governor was announced on October 7, 1946.

Cyprus was constantly in the news in 1946 as the area to which illegal Jewish immigrants to the Palestine mandate were taken by the British. Large camps were established. Deteriorating conditions in the camps produced British investigations, the results of which tended to show that there was a considerable amount of sabotage and destruction of facilities in the camps by the inmates.

The island has a dry climate, but excellent fruits are raised. Grazing has been an important occupation, but the Government has recently attempted to encourage farming instead of grazing, a movement which has been resisted by the traditional goatherds, who have long been at odds with the farmers. Tree planting and the building of wells and reservoirs have been stimulated by the Government. The chief exports are animal products and agricultural products. Foreign trade (1944): imports £4,804,767; exports £2,452,496.

ALZADA COMSTOCK.

CZECHOSLOVAKIA. A republic in central Europe which was under German control from March, 1939, until its liberation by Allied armed forces in 1945 (see *Events* below). Area: 49,373 square miles (excluding Ruthenia ceded by treaty to the U.S.S.R. in 1945). Population (1930 census): 14,000,000 (excluding those in Ruthenia). Capital: Praha (Prague), 924,000 inhabitants (1946). Other important cities: Brno (Brünn), 268,900 (1946); Moravská Ostrava, 175,600 (1946); Bratislava, 157,700; Plzeň (Pilsen), 122,800 (1946).

Production. Agriculture is the predominant industry with 41 percent of the total land area devoted to farming. In 1945, the estimated yield of the harvest was (in quintals): rye, 11,088,394; wheat 8,912,873; barley 4,253,650; oats 6,438,280. In 1945 there were 98 sugar factories, which produced 402,291 metric tons of sugar. The total number of factories was 18,318, of which 2,171 were textile mills and 3,313 glass works and stone factories.

Government. After World War II, the Constitution of 1920 was restored in principle. Within the framework of the Czechoslovak Republic, Slovakia was granted provisional self-government and the Slovak National Council in Bratislava was recognized as the organ of legislative power in all matters not reserved for the joint Czechoslovak Government. On October 28, 1945, the Provisional National Assembly in Prague confirmed President Eduard Beneš (elected December 18, 1935) in office. Temporary emergency legislation is carried out by Presidential decree.

Events. Amid the arduous tasks of reconstruction the Republic of Czechoslovakia, like all of its neighbors, found its troubles multiplied during 1946 by the global clash of interests and ambitions between the Soviet giant and the American colossus. Its leaders and peoples, cherishing bitter memories of Munich, had long since cast their lot with the U.S.S.R. rather than with the Western Powers. While preserving a greater measure of procedural democracy and personal freedom than any of the other States within the Soviet sphere, they were nevertheless committed to collaboration with Moscow in foreign affairs and to economic collectivism in domestic policy. This orientation was deplored by the United States State Department, which expresesed its displeasure in ways causing pain in Prague without producing any significant change of course.

Retribution. The punishment of Nazi criminals and the expulsion of Sudeten Germans and Magyars continued to occupy a large share of public attention during the year. On May 1 Karl Hermann Frank, erstwhile Nazi Protector of Bohemia and Moravia, was sentenced to death by the People's Court which found him responsible for the massacre of Lidice and other atrocities. He was publicly hanged in Prague on May 22. On October 23 Deputy Protector Kurt Daluege, who had ordered the execution of thousands of Czechs, was hanged as a common criminal after two unsuccessful attempts at suicide. Father Joseph Tiso, chief of the Nazi puppet-state of Slovakia after 1939, was brought to trial in December. Evidence introduced at Nuremberg against Baron von Neurath documented what had long been known: that the Nazi rulers of the land, 1939–1945, had sought to stamp out all sentiment of nationality by exterminating the intelligentsia.

The treasonable role of many members of the Sudeten and Hungarian minorities in the tragedy of 1938–39 explained, if it did not justify, the decision of the Czechoslovak leaders to expel both

groups from the country. In February an accord was reached with Budapest for the exchange of 100,000 nationals on each side. But on June 27 Prague asked the Council of Foreign Ministers to approve the deportation to Hungary of 200,000 more Magyars and to require Hungary to return 100,000 Czechoslovak nationals from Hungarian territory. A month later it was announced that half of the 3,200,000 Sudetens had already been expelled and were largely in the American and Soviet zones of Germany. By the end of the year, according to plan, only 60,000 would remain—chiefly skilled workers and older people. Meanwhile, some 2,000,000 Czechs, Slovaks, and Jews were settled in the former Sudeten areas.

In August Prague proposed to transfer a thin slice of frontier territory to Hungary in return for the acquisition of an enlarged Danube bridge-head south of Bratislava. In insisting upon the exchange of populations, President Beneš asserted (August 17) that "not a single man in Czechoslovakia would be ready to agree that we should again try to carry out a policy which was instrumental in producing the surgical operation of Munich." Early in October the Paris Peace Conference approved the transfer of a reduced Bratislava bridge-head to Czechoslovakia, but rejected Prague's demands for the expulsion of 200,000 Magyars. Delays in transferring the populations covered by the February agreement led to recriminations in the autumn, but the Prague Government accepted the Paris decision with good grace and by the end of December had apparently abandoned further efforts to expel the remaining Hungarian minority. The Czech-Polish quarrel over Teschen still defied settlement, though the war of the journalists on both sides of the border had diminished appreciably by autumn.

Mother Russia. The determination of the resurrected Republic to cast its fortunes with the Soviet Union was reflected in a variety of ways. The uranium mines near Karlsbad were reported in January to be under Russian control. Said Prime Minister Zdenek Fierlinger on March 10: "It is not true that my Government has turned its back on the West. Czechoslovakia has not turned her back on anybody, but she is looking for her safety to the Soviet Union." In mid-March a nationalization program went into effect, making State property of most of the country's industries in the fields of coal, power, steel, chemicals, pottery, porcelain, glass, rubber, textiles, paper, and leather, along with the Bata shoe factories. Despite Anglo-American refusal to approve the forcible repatriation of displaced Russians, Balts and Poles in Germany and Austria, Prague agreed to repatriate 40,000 refugees from Carpatho-Ukraine, now part of the U.S.S.R.

On May 9 Premier Fierlinger and Foreign Minister Jan Masaryk signed in Belgrade, amid great festivities and military demonstrations, a Czechoslovak-Jugoslav treaty of friendship and alliance. The completion of the Soviet alliance system in Central Europe through a comparable pact between Prague and Warsaw was not realized in 1946. But various agreements with Moscow on credits, trade and communications strengthened ties already made firmer by the results of the national elections. Government spokesmen deemed it necessary in November to deny reports that the armed forces of the Republic were under Soviet control. The weight of Czechoslovakia in the world balance of power, however, was unmistakably in the scales on the side of the Soviet Union.

The Election of May 26. On the last Sunday of May the voters went to the polls to elect a new Parliament. At Prague's request Marshal Ivan S. Konev agreed, three days before the balloting, to suspend the movement through Czechoslovakia of Russian troops leaving Austria for Germany. By all accounts the election campaign was conducted in an atmosphere of freedom and tolerance, with the results accurately reflecting popular preferences. The Communists, emerging as the largest single party, won 114 seats in the National Assembly and the Social Democrats 36. The National Social Party (Beneš) won 55 places, the Catholic People's Party 47, and the Slovak Democratic Party 41. The Communists received 40 percent of the total vote in Bohemia and Moravia while the conservative Democrats won 62 percent in Slovakia. Commented Fierlinger: "The masses realize that without the Communists, the Fascist forces would never have been defeated. There is no doubt that our great northern ally influenced the decision of many voters, even though it never mixed in our internal affairs." In the final count Communists and Socialists together controlled 152 seats as compared with 148 for the parties of the Center and Right.

In the new Cabinet, Social Democrat Fierlinger was replaced in the premiership by Communist Klement Gottwald, though the number of posts awarded to conservatives was somewhat increased as compared with the distribution in the Provisional Government. Dr. Eduard Beneš was elected to the presidency for the third time by unanimous vote of Parliament on June 19. Following a popular ovation, he took the oath of office from Antonin Zapotcky, Communist President of the Assembly.

Toward a New Constitution. In addressing Parliament on July 8 Premier Gottwald called for a new charter which would ratify the nationalization laws and "destroy the hopes for a return of private enterprise" in key industries, while protecting "private enterprise in small and middle-size business and all private property justly gained." He asked also for a 2-year economic plan; an "exclusive national State of Czechs and Slovaks" in which minorities would enjoy freedom and citizenship but be barred from voting and from active participation in government; and guarantees of free elections, women's rights, freedom of press, religion and assembly, an independent judiciary and rights to work, recreation and disability compensation.

A parliamentary commission of 36 members, appointed in November to draft the new constitution, was expected to take the better part of a year to complete its work. But two facts in the new balance of political forces were clearly established. One was that the Communists and their Socialist allies enjoyed the voluntary support of a majority of the electorate. The other was that the Left groups, while committed to socialization of large scale industry and finance with the approval of most Rightists, had no thought of introducing collectivism in agriculture and small business, nor of restricting personal freedom or democratic processes in the interest of perpetuating their own power or implementing any program of social revolution.

The Wrath of Washington. The nationalization statutes contemplated compensation to all former owners other than Germans, Hungarians and local collaborators and traitors. American-owned properties affected were variously estimated to be worth $30,000,000 to $50,000,000. Prague at all times conceded that compensation must be paid, but negotiations for payment were not completed during 1946. The State Department expressed its sharp opposition to the general course of Czechoslovak policies by revealing on October 16 the permanent suspension of the remaining $40,000,000 of a $50,-

000,000 credit extended in the spring for purchase of surplus United States army equipment in Europe and by asking the Export-Import Bank to suspend parleys for another credit of $50,000,000 for equipment and raw materials for rehabilitation.

In the background of this action was the alleged lack of gratitude displayed by the Czechoslovak press for other aid, despite the assurances of Ambassador Juraj Slavik, who told President Truman in presenting his credentials on June 12 that his Government and people would "never forget what they owe" to America. The Washington decision was explained, albeit unofficially, by reference to a Czechoslovak accord with Rumania by which Prague had agreed to resell to Bucharest at a 7 percent profit some of the $10,000,000 worth of surplus material purchased from the United States. Unfriendly references to "dollar imperialism" in the press were also cited among the factors influencing the decision, along with Czech support of Soviet policy at the Paris Peace Conference. It was not made clear either in Washington or by Ambassador Laurence Steinhardt in Prague whether the "freedom of the press' generally championed by the United States was to be interpreted as requiring a ban on criticism of American policies in Czechoslovak journals. Neither was it apparent how charges of "dollar diplomacy" could be refuted by withholding dollars from states where such charges were made.

Left Turn. The initial effect of the American action was to strengthen, rather than weaken, the anti-capitalist forces in Prague. A two-year plan of economic reconstruction and socialist industrialization became law on October 28 and went into effect on January 1, 1947. On October 31 Deputy Foreign Minister Vladimir Klementis asserted that the chief difficulty with Washington had been the American desire to include a clause in a trade agreement pledging both parties to membership in the proposed world trade organization—an obligation which Prague was unwilling to assume without assurances that the Soviet Union would also become a member. He denied that his Government had imputed political motives to the American offer of credits, but said that new steps would be taken to hasten compensation of expropriated foreign investors. On November 7 negotiations were concluded in London for a British credit of $10,000,000 to Czechoslovakia.

On November 14 an exchange of notes in Washington between Ambassador Slavik and Dean Acheson effected an interim commercial accord by which Czechoslovakia reiterated its desire to contribute to the reduction of trade barriers and the elimination of discriminatory treatment; declared itself "in accord with the general tenor" of the American proposals for the expansion of world trade and employment; expressed its intention to abandon bilateral barter agreements and return to commercial multilateralism "at the earliest possible date"; granted reciprocal most-favored-nation treatment to the United States, pending the negotiation of a comprehensive trade treaty; renewed pledges of compensation for nationalized property; and agreed to keep the United States informed "concerning the international economic relations of Czechoslovakia." There was no indication that this accord would be followed by resumption of discussions of American credits. (Text in The Department of State *Bulletin*, December 1, 1946, pp. 1004–6)

Foreign Minister Jan Masaryk declared in an interview in Washington on December 2 that the Republic needed $300,000,000 to restore its industry to a prewar level and would seek a loan from the International Bank. Europe, he said, is going Left and "only ostriches can't see that." He denied that there was any "iron curtain," added that he was "convinced" that no Third World War would break out soon, and expressed "contempt" for those anticipating a conflict. Through the U.N., he concluded, Czechoslovakia hoped to contribute to the solution of pending problems and the building of One World. Prague's part in the enterprise would plainly depend on the shape of things to come in the relations between Washington and Moscow. See GERMANY, HUNGARY, POLAND, U.S.S.R.

FREDERICK L. SCHUMAN.

DAIRY INDUSTRY, Bureau of. A Bureau of the U.S. Department of Agriculture, established as the Bureau of Dairying in 1924. It conducts investigations in the breeding and management of dairy cattle, in nutrition, and in the physiology of milk secretion and of reproduction. It also records the production of cows in dairy-herd-improvement associations for the purpose of identifying animals possessing an inheritance for transmitting superior milk- and butterfat-producing ability to their progeny. It develops sanitary methods of handling milk on the farm, in transit, and in dairy plants; and studies other factors affecting the wholesomeness and commercial value of milk. Chief: O. E. Reed. See AGRICULTURE.

DAMS. With the return of peace conditions, work has been resumed on a number of projects involving the construction of large dams, but progress has been checked and hampered by shortage of men and materials, by high prices and wages, and by government orders to defer the work to permit of concentrating construction on the housing emergency. Many dams for hydro-electric power development are built by utility concerns. Those for irrigation, flood control, and navigation or river improvement are built mainly by two government agencies—the Bureau of Reclamation, and the Corps of Engineers, U.S. Army (War Department). However, many of these dams serve also, more or less incidentally, for power development.

In a general classification there are earth dams and concrete dams; the former divided into earth and rock embankments, and the latter into arch, gravity and hollow dams. Stone masonry dams are rare. Research in the design of earth dams is being undertaken by the American Society of Civil Engineers, covering such matters as materials, foundations, pressures, drainage, seepage, protection from wave erosion, and improvements in methods of construction. In the examination of sites for dams, which are often difficult of access, extensive use is being made of aerial surveys.

A strikingly bold work now in progress is the increasing of the height of the concrete-arch Ross dam of the municipal power system of Seattle, Washington. From its original height of 290 feet, it is being raised to 545 feet without enlargement of its base. But with such reinforcement it is to be extended to an ultimate height of 675 feet. Other examples of typical private projects may be noted: on the San Jacinto River to create a reservoir for domestic and industrial water supply at Houston, Texas; an earth embankment 7,700 ft. long, including 1,300 ft. of concrete spillway, with steel control gates. On the Wisconsin River for power and flood control; water from the reservoir in flood times to be pumped by screw pumps with a

lift of 25 ft. to a reservoir on the Little Eau Plaine River, near Wausau, Wis. On the Potomac River, near Cumberland, Md.; here the Savage dam, begun in 1939, was halted in 1943, but is now urged for completion as an aid to checking the pollution of the upper Potomac; it is to be an earth dam, 175 ft. high. The Neversink dam is under construction as a part of the new Delaware River water supply for the city of New York.

Of numerous projects for dams by the U.S. Bureau of Reclamation, eight were under way in 1946: (1) Anderson Ranch dam on the south fork of the Boise River, Idaho; halted in 1943 and to be completed in 1948; the highest embankment dam in the world, 444 ft. (2) Angostura dam, on the Cheyenne River, South Dakota; concrete gravity structure 150 ft. high. (3) Cascade dam, on north fork of the Payette River, Idaho; earth and rock fill, 90 ft. high. (4) Davis dam on the Colorado River, Arizona; earth and rock fill, 138 ft. high; to be completed in 1948. (5) Horsetooth dam, near Fort Collins, Colo., forming a reservoir to receive water coming through the 13-mile Continental Divide tunnel from the Pacific slope. (6) Granby dam, 232 ft. high, for a collecting reservoir at west end of tunnel. (7) Kortes dam, on North Platte River, Wyoming; concrete gravity dam, 200 ft. high. (8) South Coulee dam, supplementing the Grand Coulee dam on the Columbia River in Washington. A series of dams has been proposed along the Columbia and Snake rivers, but is opposed by fishery interests, for the reservoirs would destroy large areas of fish-spawning grounds.

Many flood-protection dams built by the Corps of Engineers, U.S. Army, will form reservoirs that may serve for power development, streamflow regulation, and other purposes. Projects renewed after the war include Susquehanna River dams, Pennsylvania; Garrison dam on the Missouri, North Dakota; John Martin dam, Colorado; Canton dam, Oklahoma, and many others forming parts of extensive systems. Among the eastern works is the Genesee River dam, near Mount Morris, N.Y.

In foreign fields there are many important works and projects. A concrete dam on the Sutlej River, in India, for irrigation and power purposes, is being designed by American engineers. It is in the Punjab province, some 100 miles south of Lahore. For the work of increasing the height of the stone masonry Aswan dam, on the Nile, bids have been invited from the United States, Great Britain, Sweden, and Switzerland. It serves now for flood control and irrigation, but the increase in height is to be accompanied by power development. A proposed dam for power and irrigation on the outlet of Lake Tana, in Ethiopia, has international aspects, and is planned by American engineers. An earlier project has been proposed by British interests, since it would control the headwaters of the Blue Nile, for the Italian invasion a few years ago became a threat to control of the flow of the Nile.

In China, a dam is being built to force the unruly Yellow River to return to its normal channel running northeast to the sea. The government has also had plans prepared by the U.S. Bureau of Reclamation for a dam on the Yangtse River as part of a vast project for irrigation, power, flood control, and inland navigation.

In Argentina, an 80-ft. concrete dam for irrigation and power is being built on the Atuel River, which has a fall of 2,000 feet in a 25-mile canyon. For the water supply of Caracas, Venezuela, engineers and contractors from the United States are building a series of three dams. In Alberta, Canada, the St. Mary's earth dam for irrigation is under construction near Spring Coulee, and also a power dam 130 ft. high on the Kananaskis River. Two concrete dams are being built on the Dordogne River, France, and its tributary the Cere River; they are peculiar in that the spillway is in the middle and over the roof of the power house. A power and irrigation project on the Rhone is served by the Genessiat dam, 130 ft. high, with locks for navigation. France is also building dams for power purposes in Algeria, and Switzerland plans a dam 675 ft. high in the Alps, near Andermatt, also for power. The U.S. Army (in occupation) has approved the construction of the concrete Kaprun dam, 393 ft. high, in the Austrian Alps. Russia is reported as having a number of dams in its five-year plan, and also an earth dam 185 ft. high on the Chu River, in Central Asia, for irrigation in the Kirghiz district, where earthquakes are of frequent occurrence. See AQUEDUCTS, WATER SUPPLY.

E. E. RUSSELL TRATMAN.

DANISH ARTS AND CRAFTS. The renaissance in the style of Danish arts and crafts, coming toward the close of last century, which has since won world recognition for Danish industrial arts is largely identified with names such as Arnold Krog of the Royal Danish Porcelain Works; the Bing and Gröndahl porcelains; Georg Jensen silver; Anker Kyster, bookbindings; F. Henriksen, graphic arts; Johan Rohde and others. It inspired crafts in many other fields. Renowned is the ceramic ware of Herman A. Kähler and L. Hjorth; the pewter and bronzes of Just Andersen; the stoneware of Nathalie Krebs. Best known among the artists associated with the two porcelain works are Knud Kyhn, Jais Nielsen, Alex Salto (Royal Copenhagen), and Jean Gaugin, Ebbe Sadolin and Cathinka Olsen. (Bing and Gróndahl)

Among silversmiths, besides the Georg Jensen establishment, are the workshops of A. Michaelsen, Kay Bojesen, and Frantz Hingelberg of Aarhus. Hand weaving, prints, leather goods, and the Kay Bojesen toys deserve mention. Among creators of new Danish furniture are Kaare Klint, Ole Wanscher, Moelgaard-Nielsen, Kindt-Larsen, Rigmor Andersen, and Mogens Koch. Interest has been stirred also by new designs in wallpapers and hand decorated papers for book covers.

Active in encouraging Danish industrial arts is the National Society of Crafts and Industrial Arts.

C. H. W. HASSELRIIS.

DEFENSE TRANSPORTATION, Office of (ODT). The Office of Defense Transportation entered the year 1946 with its controls over the nation's transportation operations largely limited to waterway and rail transportation services. Motor trucking, local transit, taxicab, pipeline and liquid transport controls were lifted in rapid succession following V-J Day. A number of railroad and waterways restrictions were also revoked or modified before the year began.

Shortages of rail equipment, motive power, passenger coaches and sleeping cars, freight cars, particularly box cars, and continuing heavy traffic, both passenger and freight, necessitated the continuance of a number of controls over rail transportation.

The movement of troops returning from the European and Pacific fronts reached its peak at the turn of the year. Early in January demand for troop

transportation began to decline as did the heavily accelerated wartime travel of civilians, business men, war plant workers, relatives, and friends of service men and women.

On January 8, the ODT relinquished possession and control of the Capital Transit Company of Washington, D.C., the operation of the lines—taken over in November 1945 following a labor dispute—being the last holdover activity of the former ODT Highway Transport Department.

As soon as rail passenger traffic showed signs of easing, the ODT moved to modify or revoke its wartime passenger traffic regulations. The completion and delivery of 800 new troop sleepers and reductions in the movement of troops from West Coast ports of arrival made possible the revocation, late in January, of the orders which set minimum average speeds for the operation of troop trains and allocated airplane space from the West Coast to returning troops.

As of February 15, the 450 mile limitation on sleeping car runs was eased by reducing the mileage limitation to 350 miles. A further reduction to 250 miles was made, effective March 1. The order was revoked March 15. The time limit on Pullman reservations was also revoked as of March 15.

Developments during February and March—a strike of 3,500 tugboat workers in New York Harbor, shortages of box cars for the movement of export grain and foodstuffs, and shortages of box, refrigerator, and coal cars—were events presaging the chief ODT transportation problems to be coped with in the first postwar year.

On February 6, the ODT assumed possession and control of 91 towboat companies operating in New York Harbor and contiguous waters. Laurence C. Turner, Director of ODT's Waterway Transport Department was named Federal Manager of the properties. Following the signing of an arbitration agreement, the properties were returned to private control, March 3.

To expedite the movement of grain and foodstuffs for export relief, the ODT late in February and in March requested the Interstate Commerce Commission to issue service orders: requiring carriers to give preference in furnishing cars to certified shippers of food for export relief and to give priority to country grain elevators on orders for empty cars, and appointing an agent to pool empty box cars for the transportation of foodstuffs for overseas relief. These orders were suspended or revoked later in the spring as the movement of export foodstuffs improved.

Early in March, Col. J. Monroe Johnson, ODT director, made the first of a number of appeals to railroad executives to take action to relieve the box car and freight equipment shortage and to improve the efficient use of such equipment. During the month, he called upon the railroads to reduce the number of bad order cars, to cut turn around time down to 13 days or less, to improve the efficiency of their operations with respect to increasing car supply, to set a goal for the repair and rehabilitation of locomotives, to speed up the completion and delivery of railroad cars on order, and to increase their orders for additional cars. He predicted that carloadings would continue to rise.

On May 1, the ODT revoked its two remaining orders regulating railroad passenger traffic, General Orders ODT 55, which had placed all railroad passenger day coaches, baggage and express cars at the disposal of the military authorities under ODT supervision, and ODT 56, which had established uniform occupancy standards for railroad cars in organized military movements.

In order to conserve railroad coal supplies during the 59-day bituminous coal strike, the ODT, early in May, reduced coal burning passenger locomotive service by 25 percent as of May 10 and by 50 percent as of May 15. At the same time the ODT issued a directive to the Association of American Railroads embargoing all rail freight with the exception of commodities and supplies necessary to public health and safety, such as food, fuel, animal feed, medical supplies, and printing paper and ink. Railway express shipments were later embargoed. Motor carriers were also ordered to give preference to the movement of essential commodities.

In anticipation of a strike of railroad employees, the ODT was ordered by the President to assume possession and control of the nation's 337 rail carriers on May 17. Charles H. Buford, executive vice president of the Chicago, Milwaukee, St. Paul & Pacific Railroad Co., was named Federal Manager of the properties.

The ODT moved swiftly to forestall a breakdown in the transportation of essential public needs. Conferences were held with representatives of the airlines, water carriers, highway carriers, the Army, Navy, and the Interstate Commerce Commission to formulate plans for the utilization of non-rail transportation in the event of a stoppage of rail transportation. A number of former ODT officials in various transportation fields were recalled to aid in maintaining the movement of essential supplies.

Following the stoppage of rail service, the ODT on May 23 issued a series of orders coordinating the use of air, highway, and water transportation services. Preference lists of essential commodities were established for each type of carrier, joint action and equipment and service pooling arrangements were authorized, and ODT officials were named to administer the emergency transportation measures.

Aiding the ODT in its effort to mobilize emergency transportation service were various advisory committees representing their respective transportation industries and representatives of other government agencies including the Army, Navy, Maritime Commission, War Shipping Administration, Civil Aeronautics Board, Air Transport Command, Naval Air Transport Service and the Interstate Commerce Commission.

A complete and integrated organization was directing transportation of essential needs when the strike was called off on May 24. The emergency measures were rescinded shortly thereafter, possession and control of the railroads being relinquished as of 4 p.m., May 26. At the same time the ODT relinquished possession and control of the Illinois Central Railroad which had been under government control as a result of a labor dispute since August 23, 1945.

The ODT assumed possession and control of the Monongahela Connecting Railroad Co., on June 14, following a labor dispute. The line was returned to private operation August 12 upon settlement of the differences.

Although the ODT was scheduled to liquidate its activities at the close of the fiscal year, June 30, shortages of railroad freight equipment, continued increases in freight traffic, and ODT operation of several transportation services involved in labor disputes resulted in Congressional authorization for continuance of the agency until April 30, 1947.

Freight car loadings, particularly box cars and coal cars, continued to rise during June and by mid-July, loadings were above their wartime peaks. To meet the demand for box cars in the grain grow-

ing regions, the Interstate Commerce Commission at the request of the ODT ordered the movement of 1,000 empty box cars per day into the Central, Western, and Southwestern regions.

To increase the efficient utilization of available box cars and coal cars, the ODT urged receivers of freight to provide for Saturday loading and unloading. The railroads were also called upon to speed up the movement of equipment and to step up the repair of bad order cars, the number of cars in need of repair being twice as large as during the war years.

As claimant agency for the transportation industry, the ODT worked with the Civilian Production Administration to channel needed items of steel to the railroads and car builders both for repair and the building of new equipment. Efforts were also made to bring about price adjustments in certain lumber items through the Office of Price Administration.

To reduce the detention of coal cars, penalty demurrage charges were imposed as of August 1 in an ICC Service Order issued at ODT request. Coal receivers were also asked to provide for Saturday unloading for loading within the allotted free time. In an effort to increase heavier loading of freight cars, the ODT revised and reissued its less than carload and carload freight orders, General Orders ODT 1, Revised, and 18A Revised, effective August 11. Through arrangements made with the Interstate Commerce Commission, service agents of the ICC Bureau of Service were assigned the task of isolating and reporting non-compliance with ODT orders and of obtaining efficient and maximum utilization of railroad facilities.

Additional appeals were made to shippers and receivers of freight to speed up the loading and unloading of freight cars and the railroads were called upon to reduce the number of bad order cars and increase their orders for new equipment. The appeals resulted in a steady improvement in turn around time and continued reductions in the number of bad order cars during the late summer and fall months. Turn around time decreased from 14.4 days in June to 13.0 days in October. Bad order cars declined from 82,000 in July to 73,000 in November.

As predicted by Colonel Johnson early in the spring, freight car loadings during October and November reached record highs, surpassing the highest loadings since 1930. For the five weeks prior to November 16, loadings were running at an average of 925,000 a week, a figure considerably above wartime levels.

Several days before the year's second stoppage of bituminous mining operations, the ODT ordered a 25 percent reduction in railroad passenger service performed by coal burning locomotives, effective 11:59 p.m. November 24. On December 3, after the strike had been in effect for about two weeks, the ODT took four restrictive measures to conserve the Nation's remaining stockpiles of railroad bituminous coal as follows:

1. Requested the Interstate Commerce Commission to embargo all rail freight and express shipments except certain commodities and supplies necessary to the maintenance of public health and safety. The embargo action (ICC Service Order No. 649) was to be effective at 12:01 a.m., Friday, December 6.
2. Effective 11:59 p.m., Sunday, December 8, increased the recently ordered 25 percent reduction in railroad passenger mileage performed by coal burning locomotives to 50 percent.
3. Requested Postmaster General Robert E. Hannegan to adopt, as of 12:01 a.m., Friday, December 6, such regulations as may be deemed advisable and appropriate to restrict and reduce the amount of United States mail, including parcel post, that may be tendered to the railroads during the present emergency.
4. Subjected all export shipments except bulk grain, livestock, and exports for the armed services to shipment under special permit, effective 12:01 a.m., Wednesday, December 4.

In addition the ODT made plans to reinstate the emergency organization setup to direct transportation of essential needs at the time of the railroad strike in May.

On December 7, following the announcement that soft coal mining operations would be resumed the ODT acted immediately December 9 to restore normal rail passenger, domestic and export freight, express and parcel post services.

J. M. JOHNSON.

DENMARK. A kingdom of northwestern Europe, comprising the peninsula of Jutland, the two main islands of Zealand and Fyn, and about 200 smaller adjacent islands in the Baltic. Denmark was occupied by German armed forces from April 9, 1940, until May 5, 1945. The Faeroe Islands (q.v.) an integral part of the kingdom, were occupied by British troops on April 13, 1940, for the duration of the war. Greenland (q.v.), a Danish dependency, remained under the control of the local Danish administration but accepted United States protection for the duration of the conflict. The King of Denmark was King of Iceland (q.v.) until June 17, 1944, when the independent Republic of Iceland was established. Capital of Denmark, Copenhagen. King, Christian X, who succeeded to the throne May 14, 1912.

Area and Population. Total area excluding the outlying possessions, 16,575 square miles. Estimated population, January 1, 1945, 4,024,000, as compared with 3,844,000 at the census of November 5, 1940. The live birth rate per 1,000 inhabitants was 21.3 in 1943 (20.9 in 1942); death rate, 9.6 (9.6). There were 37,524 marriages in 1944. Populations of the chief cities (1940 estimate): Copenhagen 890,130, Aarhus 99,881, Odense 85,521, Aalborg 55,621.

Education and Religion. There is no illiteracy. The elementary schools had 455,990 pupils in 1944; secondary and middle schools 67,064; the two universities had 6,474 students enrolled. The 1921 census showed 3,221,843 Protestants, 22,137 Roman Catholics, 5,947 Jews, and 17,349 others.

Government. The Constitution of June 5, 1915, as amended Sept. 10, 1920, vests executive power in the King acting through a cabinet responsible to the Rigsdag (Parliament). Legislative power rests jointly in the King and Rigsdag. The Folketing (lower chamber of the Rigsdag) consists of 149 members elected for four years by proportional representation. The Landsting (upper chamber) comprises 76 members serving for eight years; its powers are very limited. Prime Minister: Knud Kristensen (appointed November 8, 1945).

Events, 1946. On the home front, the year was relatively uneventful, but territorial problems, trade relations, and an uneasy realization of being once again placed at the intersection of two great power orbits kept Denmark in suspense. All of the country's remaining overseas possessions—Bornholm, the Faeroes, and Greenland—made news during the year. The South Schleswig question remained in the center of national interest.

The Homefront: From Unrest to Tranquillity. At the start of the year, the after-effects of the war and of the Nazi occupation were still felt in many respects. Widespread economic dislocation persisted, the animosity against Nazis and collaborators had not subsided, and, above all, the spirit of violence which the hazardous life of the underground had bred in the once peaceful and orderly country was still rife.

A marked political tension, which had begun to manifest itself in December 1945, persisted through January and February. Its primary cause was popular dissatisfaction with the slow pace of the purge and the leniency shown by the courts towards traitors and collaborationists. The former Resistance threatened to take matters into its own hands. Wildcat strikes, bomb outrages, and even a few political murders were used to register this protest.

The Agrarian, and on the whole conservative, government of Premier Knud Kristensen laid these terrorist outbreaks mostly at the door of the Communists. In an angry speech at Esbjerg on January 14, Mr. Kristensen declared: "I am not going to bow before the Communist wind that now blows through the country . . . Law and order must prevail, and just as we did not tolerate Nazi methods, we won't let ourselves be dictated to by the Communists, at least not while I am in power."

This statement was followed by a series of strikes which for a while threatened to throw the country into a state of open anarchy. The tension was climaxed by a two-day general strike that broke out in Copenhagen on February 9, accompanied by turbulent street demonstrations. The immediate cause of this action was the commutation by a superior court of a death sentence imposed on a Nazi informer, Oluf Klagenberg.

The strike, and concomitant disturbances, were brought to a halt through the intervention of the powerful trade unions and the Social-Democratic party, which blamed the whole action on "unknown and irresponsible circles."

Thereafter the agitation subsided gradually, especially after the communal elections of March 12 had permitted voters to let off a little steam. The results of the poll were, by and large, in line with those of the general election of October 30, 1945, at which the Social-Democrats had lost heavily to the Communists, and the Agrarian party had made corresponding inroads on the strength of the Right. In spite of the Communists' gains in absolute figures, however, they showed considerably less strength than at the Folketing election, especially in Copenhagen.

In the following months, public interest was increasingly distracted from the political strife at home by important developments in the Danish possessions abroad and in the Jutland border question.

The Russians Leave Bornholm. Ever since the end of hostilities in Europe, the continued yet obviously unnecessary presence of strong Soviet forces on the Danish island of Bornholm, situated in the center of the Baltic, had been an irritant in international relations. While the Russian troops on the island behaved with extreme reserve and courtesy, and there were no incidents between them and the local population, there were persistent rumors of Soviet designs of annexation. The Danish Government was worried, but said nothing in public; the Swedish Government was perhaps even more concerned because of Bornholm's nearness to the mainland of Sweden. In the House of Parliament in London, the question was raised repeatedly, why were the Russians staying on the Danish island, and what did the government of Britain propose to do about it.

Wisely, the British refrained from prodding the Russians in the matter. On January 28, Philip J. Noel-Baker, Minister of State, informed the House of Commons that the Government did not intend to bring the Bornholm question up before the United Nations Security Council, but considered it to be "a matter for direct settlement between the Gov ernments of Denmark and the Soviet Union."

Shortly thereafter, negotiations between the two governments got under way and progressed smoothly. The Russians posed in effect only one condition for their withdrawal: that the island be garrisoned by Danish troops and effectively guarded against a new attempt at foreign occupation. The Danes, who before 1939 had badly neglected their national defenses, agreed to mend their ways in this respect.

On March 7 the first intimation of an imminent Russian evacuation was received in Copenhagen. The news was greeted with unconcealed joy by the Government, as well as the public. A few days later the first troop withdrawals began and by April 5 the last Russian soldier had left the island. Even before the evacuation was completed, the first Danish troops arrived, and indications were that Bornholm in the future would be strongly held and perhaps fortified by the Danes.

Denmark, Greenland, and the United States of America. Meanwhile, the question of Greenland's future status and of the American bases on that island had also become the subject of lively speculation, both in Denmark and abroad. Negotiations in the matter proceeded under a cloak of secrecy apparently imposed for American security reasons.

A Greenland delegation of six arrived in Copenhagen on December 21, 1945 for talks with Premier Kristensen. The spokesman of the group pointed out that the Greenlanders did not seek independence but merely an extension of self-government, while maintaining close relations with Denmark. On March 28, it was announced in Copenhagen that the Danish Admiralty had decided immediately to set up a separate naval command at Godthaab on the west coast of Greenland, and that a coast guard cruiser would be dispatched there shortly.

On May 29, the Soviet news agency TASS reported from Copenhagen the arrival, in that city, of an American military mission from Greenland. According to TASS, the Americans were intent on retaining their military installations on Greenland. The arrival of the United States mission in Copenhagen coincided with a visit to Moscow by the Danish Foreign Minister Gustav Rasmussen.

On October 30, Mr. Rasmussen informed the Folketing that the Danish Government was considering termination of the wartime agreement with the United States under which American military and naval forces were established in Greenland. He added that a clause in the agreement provided for its termination, when "the peace and security of the American continent was no longer endangered," and that he supposed this was now the case.

The Faeroe Islands Seek Independence. Still another Danish dependency, the Faeroe Islands group north of Scotland, became a source of worry and excitement for the Danes. At the end of the war, the Faeroes, which had been occupied by the British on April 11, 1940, two days after the German invasion of Denmark, had been restored to Danish sovereignty, with only a few British troops remaining on the islands. During the long period of enforced separation from Denmark, however, a strong independence movement had developed in the

Faeroes, spearheaded by the *Folkeflokkur* or People's party. At the 1943 elections, this party had taken a strong lead over its two rivals, the *Samband* party, which favored continued union with Denmark, and the Social-Democrats, who were split on the issue of independence.

After the postwar negotiations with Denmark had reached an impasse, the Faeroe Lagting (assembly) resolved in June 1946 to submit the question of independence to a plebiscite, which was held on September 15. The vote was one of the closest ever recorded for a popular referendum of this type. While 5,660 Faeroese cast their ballots in favor of an independent republic, 5,500 expressed a desire to remain Danish subjects; the remainder of the ballots, 480, were declared invalid. On September 19, Thorstein Petersen, leader of the People's party and speaker of the Lagting, proclaimed the Faeroes' independence, and four days later the Assembly ratified this act by a vote of 12 to 11.

The Danish Government, however, declared that the ballot had been inconclusive and denounced Petersen's action as a "coup d'état." On September 24, King Christian dissolved the Lagting and ordered the election of a new assembly on November 8. After the poll, which gave the partisans of continued union with Denmark a slight plurality, a parliamentary delegation from the Faeroes was invited to Copenhagen for further discussions about the future status of the islands.

The South Schleswig Problem. The question, however, which more than any other, preoccupied Danish minds during the year was that of the Danish minority in the German province of South Schleswig. (see 1946 YEAR BOOK)

The Danes were particularly concerned over two developments, both of which tended to prejudice the minority's position in South Schleswig. One was the continuing influx of German refugees and deportees from the East; by mid-summer, about 500,000 of these newcomers had been resettled in the province, with many more to come. This mass migration not only reduced the Danish minority in South Schleswig to insignificance, but caused even the local German population to be outnumbered by a new Prussian element of altogether different mentality and traditions. Thereby arose new pressures and new frictions which the Danish Government regarded as a potential threat not only to the Danish minority south of the border, but also to Denmark's own territorial integrity and security.

The other unfavorable development was the formation in mid-September of the new German *Land* of Schleswig-Holstein, in the course of the territorial regroupment carried out by the British military authorities in their zone of occupation in Germany. As a result of this reform, Schleswig with its mixed population was tied administratively even closer to Holstein with its purely German population, thus further diminishing the importance of the Danish element in the border districts.

Since both these developments occurred with the full knowledge and approval of the British Military Government, and over the repeated protests of the Danish Government, a growing tension between London and Copenhagen was the natural result.

After a lengthy and at times rather stormy debate of the matter, the Folketing on July 9 adopted a resolution supporting the Government's stand and urging continued negotiations with the British with a view to: (1) safeguarding the rights of the Danish minority in South Schleswig; (2) obtaining the removal of the immigrants from Eastern Germany; and (3) ensuring Danish participation in any final settlement affecting Denmark's national interests.

On August 9 Foreign Minister Rasmussen left for Schleswig-Holstein to study the minority's plight at first hand, and to confer with the British military authorities. He was given a friendly reception by the British, but failed to come to an agreement with them, and he was also unable to prevent the establishment of the state of Schleswig-Holstein, which occurred shortly thereafter.

In reply to renewed Danish representations, the British Chargé d'affaires in Copenhagen on September 9 delivered a note, which the Danish press characterized as "unusually sharp." In it the British Government demanded that Denmark cease to interfere, directly or indirectly, with the affairs of South Schleswig. At the same time, however, the British declared their willingness to take Danish proposals for an exchange of population, a plebiscite, or a frontier revision without plebiscite, under advisement.

The British note gave rise to a new lively debate in the Folketing, which did not fully share the Government's views in the matter and came close to overthrowing it. As a result the Danish reply, which was made public on October 21 was conciliatory and did not insist on a plebiscite or on submitting the dispute to the United Nations, as the Government had originally planned. The note did, however, reiterate the Danish Government's wish for an administrative division between Schleswig and Holstein, and for a voice in the German peace settlement insofar as it would affect Danish interests. A new attempt to overthrow the Government on the South Schleswig issue was defeated in the Folketing on December 5, by a vote of 74 to 19, with 48 abstentions.

The problem of the German refugees in Denmark also remained unsettled. With more than 200,000 German nationals still on Danish soil, the Copenhagen Government in August appealed to the Allied Control Council for their removal. The Russian representative on the Council expressed willingness to receive half of the refugees in the Soviet zone, if the western powers accepted responsibility for the rest. The British, however, balked at taking more than 12,000 into their already badly overcrowded zone. Repatriation of this limited number began on November 1, but the chances that Denmark, before the end of the year, could rid itself of the remaining Germans were slight.

Economic Affairs. The economic situation in Denmark continued to improve steadily, with both industrial and agricultural production at high levels toward the end of the year. Many food items, including butter, remained rationed not because they were in short supply, but because so much food was being shipped abroad, especially to Britain, that home consumption had to be limited, though rations were ample.

Important trade agreements were concluded with Russia in July, with Great Britain in August, and with Poland in October. The terms of the treaty with Russia were not made public, but the agreement with Britain provided for shipment to that country until October 1949 of about 90 percent of Denmark's surplus butter and bacon and practically all eggs. The trade pact with Poland assured Denmark of substantial and increasing deliveries of much-needed coal, beginning with 1,300,000 tons in the first year. Denmark, on the other hand, promised to supply Poland with 45,000 horses, mostly on credit.

In August the Government was authorized by

the Folketing to take up a loan of $50,000,000 from the United States Import and Export Bank, for the purchase of American cars, trucks, tractors, chemicals and raw materials, mainly.

Denmark's greatest economic difficulty in 1946 was a marked shortage of foreign exchange. In spite of the heavy deliveries of agricultural produce to Britain, Denmark's indebtedness to that country exceeded 400,000,000 kroner in September.

In the first days of September, the second general conference of the United Nations Food and Agricultural Organization (FAO) was held in Copenhagen, with delegates from 42 countries attending it. It was the greatest international congress ever held in Denmark.

Production. Denmark is essentially a land of intensive dairy farming. Industry, however, is also important, despite an almost complete lack of minerals and water power. Shipbuilding, in particular, is a leading Danish industry. Before the war 35 percent of the working population was employed in agriculture and dairying and 33 percent in industry. Commerce and fishing were the other important occupations. It was estimated in July, 1945, that Denmark at the end of the German occupation still possessed the following percentages of its prewar livestock: horned cattle, 97 percent; pigs, 52; poultry, 54; horses, 106.

Principal crop production, in 1,000 metric tons, in 1945 included: root crops, 21,390; potatoes, 1,620; barley, 1,250; oats, 990; mixed grain, 740; rye, 320; wheat, 280. In 1944 the total value of fish caught was 150 million kroner.

Foreign Trade. In 1944 the total value of imports was estimated at 1,167,600,000 crowns; exports, 1,347,600,000 crowns. As in previous years during the occupation, Germany accounted for about 70 percent of Denmark's foreign commerce both on the import and export side. Germany's accumulated debt on clearing account totalled 2,692,000,000 crowns on Sept. 30, 1944, not including occupation costs.

Finance. The 1945–46 budget estimates included current revenue 968,865,000 kroner and current expenditure 1,112,317,000 kroner. On March 31, 1945, the public debt amounted to 1,233,990,000 kroner.

JOACHIM JOESTEN.

DENTISTRY. The year 1946 brought little change in the overall picture. Shortages of office space and of equipment delayed the resumption of practice by those released from service, or by those who had completed their refresher courses. There is no immediate relief visible to meet the critical shortage of dentists and the demands for their services. Social and economic problems are even more pressing than they were a year ago and but little nearer a solution. Just as after World War I, both returned veterans and civilian practitioners are deeply interested in specialization of the practice of dentistry; there is a progressive tendency toward specialization, even over-specialization. For the first time in over a decade, dental schools have long waiting lists of prospective students. Both books and periodicals are returning, though slowly, to a peacetime status.

Organized Dentistry. The meeting of the American Dental Association was limited to the sessions of the House of Delegates and the outstanding committees of the Association. Plans were made for a full-scale meeting of the Association in Boston in August of 1947, a meeting which will have an international character because of the participation in it of the Fédération Dentaire Internationale. Additional boards for the certification of dental specialists are in the process of formation. The board for oral surgery proposes to hold its first examination in 1947. Prosthetics is well on the way and one or more additional boards are contemplated. Dental practice, therefore, is following quite exactly the example of medicine.

Armed Services. The effort to create separate and independent dental organizations in the Army and Navy failed in the case of the former, but considerable progress has been made in the Navy. A Naval Division for Dentistry has been created within the Bureau for Medicine and Dentistry, and all functions of a dental nature are to be referred to the Dental Division. The demobilization of dentists from both services has proceeded at a rate comparable with that of other groups.

Dental Education. Although schools have been overwhelmed by the demand for refresher and graduate courses, they have been able to accommodate only a fraction of the applicants because of serious shortages of space, teachers, and equipment. The Kellogg Foundation made substantial money gifts to a number of dental schools giving short courses for demobilized dentists. Undergraduate registration in the first year of dentistry has taxed all facilities to their limit, but the three upper classes are far from crowded. Practically all of the schools have returned to a normal program without acceleration. The total first year registrations in all United States dental schools, as of October 15, 1944 was 2,496; as of October 15, 1945, 1,197; and as of October, 1946 definitely in excess of the 1944 figure of 2,496. This represents a situation of a freshman class about as large or larger than the rest of the school (three classes). The students of 1944 entered under the accelerated program as did those of the preceding war years, so that the bulk of the upper classes of the 1946–1947 school year is made up of the small 1945 entering group, and what is left of the accelerated students of the preceding two years or less. The University of Washington opened the doors of the new dental school at Seattle, at the beginning of the current school year. There are no other changes in the number or status of the dental schools in the United States.

Dental Public Health. The large demonstrations in the mass control of dental decay by the method of fluorinization of the public water supplies in single communities in each of the states of New York, Michigan, and Illinois are being pushed vigorously and efficiently. Careful records are being made now of the examinations made before the water is treated in order that eventually the effects of the projects may be determined with exactness. A similar plan has been announced by the Texas Health Department to be carried out in Marshall, Texas. A control community has been paired with Marshall, and before and after examinations are proposed. Because of statements in both professional and lay periodicals with reference to the marked absence of dental decay in Deaf Smith County, Texas, it is of great interest that the Texas Health Deparment has made the following commitment: "We are now renewing our study of Deaf Smith County, where, of course, fluorine-bearing water is a factor; but where we maintain that fluorine is not the only factor in the extremely low dental caries rate." It seems very clear that mass prevention of dental disorders can contribute more to the solution of how to provide for adequate dental care than any other single proposal; indeed a large part of current dental research has this objective.

Book and Periodical Literature. Book production, at the beginning of the year, was at a new ebb, but the year has supplied a small number of significant volumes, and an increase is quite apparent. One of these is *Teaching in Colleges and Universities (with Special Reference to Dentistry)*, by Blauch and his Associates; it is published by the American Association of Dental Schools. This is a valuable contribution of a profession, in an attempt to criticize, evaluate, and standardize its own educational program in which it has the assistance of professional educators. A second book by John A. Kolmer on penicillin (*Penicillin Therapy, Including Tyrothricin and Other Antibiotic Therapy*), published by Appleton is mentioned, although the text content directly applying to dentistry is relatively small. However the review of the periodical literature indicated a high interest in penicillin therapy, a topic receiving greater attention than any other single item, 17 out of the 277 articles that were selected as worthy of review. Penicillin is not only of value in the treatment of dental infections but seems to be of even greater service in the prevention of some of the very serious involvements of the body associated with tooth extractions. On the basis of the abstract service supplied by two dental journals and the selection of the articles to be abstracted, the subjects of major interest have to do with surgery and anesthesia, social and economic implications of the practice of dentistry, and the relations between dental disease and disease elsewhere in the body. Restorative dentistry is generously represented as is also research; the latter is rather unusual. Except as previously noted there is little that is new, the articles are either critical in character or have to do with minor improvements or modifications of treatment and techniques that are standard. Sixty-five percent of the 277 items previously noted were found in dental journals, 28 percent in medical periodicals; and the remainder, seven percent, were found in scientific or non-professional magazines. Of the 277, 86 percent were taken from North American periodicals; and the remainder were foreign in origin, chiefly British or its Dominions.

EDWARD H. HATTON.

DISCIPLES OF CHRIST, a communion known also as the Churches of Christ and Christian Churches, sprung from a movement for Christian unity, which arose in American Presbyterian circles at the beginning of the 19th century, under Barton W. Stone, in Kentucky, and Thomas and Alexander Campbell in Western Pennsylvania. This is the largest religious body having its origin in America. It was fifth among Protestant communions in the United States in 1946. In policy the churches are congregational. There are six major agencies of the communion. The United Christian Missionary Society; Board of Higher Education; Association for the Promotion of Christian Unity; Pension Fund; National Benevolent Association; Board of Church Extensions; besides the missionary societies of the several states and provinces of Canada. These agencies are corporations and are affiliated with the International Convention of Disciples of Christ which meets annually. The general missionary work, both home and foreign, of the churches is administered through The United Christian Missionary Society, with headquarters at 222 Downey Avenue, Indianapolis, Indiana. Its board of managers of 120 is composed of sixty men and sixty women. The foreign missionary work in 1946 embraced: the Belgian Congo in Africa, China, India, Jamaica, Japan, Mexico, Philippine Islands, Puerto Rico, Argentina, Paraguay and Batang, on the border of Tibet. However, the work in Japan, suspended during the war, has not yet been resumed.

Statistics of the communion show that during the year there were 5,086 baptisms in the foreign fields. The 355 mission schools had a total enrollment of 13,739. The communion maintained 9 hospitals and 16 dispensaries which gave 596,806 treatments. The Church Extension Fund amounted to $3,133,-372.00 with outstanding loans to 214 churches. The Pension Fund for the ministry showed assets of $5,-455,454.00. One hundred twenty-four young people's conferences were held. Work in America was conducted among the French, Highlanders, European immigrants, Negroes, Orientals, Spanish-Americans and Mexicans. The National Benevolent Association maintained six homes for children, and an equal number of homes for the aged. In 1946, 25 Colleges, Universities, Bible Colleges and Foundations cooperated with the Board of Higher Education.

The total church membership throughout the world in 1945 was 1,943,441; and in the United States and Canada 1,776,878. The Bible school enrollment for the world was 1,113,478, and for the United States and Canada, 1,013,679. Contributions, missionary, benevolence and educational, reported for the fiscal year 1945, in the United States and Canada totaled $8,759,872.65.

Among the periodicals published by the communion are *World Call, The Christian-Evangelist, Christian Standard,* and *Front Rank.* The president of the International Convention which was held in August in Columbus, Ohio, was Dr. M. E. Sadler, Fort Worth, Texas.

DOGS. Champion Hetherington Model Rhythm, 6-year-old wire-haired fox terrier, carried off the most coveted award in dogdom when she went best in show at the seventieth annual exhibition of the Westminster Kennel Club held in New York's Madison Square Garden.

Winner of the American fox terrier specialty show only four days before, the almost white bitch owned by Mr. and Mrs. T. H. Carruthers 3d of Glendale, Ohio, performed with all the poise of a well-mannered grandmother to reach a pinnacle that two of her offspring, Ch. Hetherington Pilot and Ch. Hetherington Nurse had just missed in 1944 and 1945.

The dam of three litters, Rhythm became the first fox terrier since 1937 to take down Westminster's top prize and in so doing she automatically won the James Mortimer Memorial Trophy for the best American bred entry. But not content with those honors, Rhythm—whose owners plan to retire her—also teamed with Hetherington Nurse to gain the best brace prize.

All of the big shows were back on the canine calendar last year and the Morris and Essex Kennel Club exhibition, blue ribbon classic of the outdoor ring, was revived after five years. A solid black American type cocker spaniel, Benbow's Beau, won the major award at that show. Owned by Robert A. Gusman of Atlanta, the Beau is an outstanding example of his breed and really had to be at Madison, New Jersey, where he triumphed in a field of 2,086 entries.

Shed of Arden, property of Mrs. Paul Bakewell 3d of St. Louis won the national retriever trials to regain the title she held in 1942 and 1943. The Labrador won after the closest kind of competition with Tonkahof Esther Bell, a golden retriever from the Kingswere Kennels at Winona, Minnesota.

Highest award for bird dogs was annexed in the

national field trials by Mississippi Zev, favored setter of Dr. Russell Trapp of Tuscumbia, Alabama. The National Fox Hunters all-age stake was won by Hill Top Hustler, hardy hound owned by Lamar Taylor of Maryville, Tennessee.

THOMAS V. HANEY.

DOMINICAN REPUBLIC. A republic of the West Indies occupying the eastern part of the island of Hispaniola. Area: 19,332 square miles. Population: 2,059,000 (1946 estimate). Capital: Ciudad Trujillo.

Most of the land surface is mountainous, with steep, narrow ranges separated by deep valleys and pocketlike lowlands. There are two principal lowland plains; one between mountain ranges parallel to the north coast, the other along the southern coast. High temperatures prevail in the lowlands throughout the year.

The People. According to the census of 1935, the population is composed of mestizos (71 percent), Negroes 16 percent), and whites (13 percent). Most of the people are concentrated near Santiago and on the southern coastal plain. The chief cities are: Ciudad Trujillo, 80,000; Santiago de los Caballeros, 34,000; and San Pedro de Macoris, 19,000.

Spanish is the official language. Roman Catholicism is the predominant religion.

In 1942 it was estimated 33 percent of the population was literate. In 1945, there were 2,478 schools with a total enrollment of 232,316. In 1945 the University of Santo Domingo had 1,000 students.

National Economy. The economy of the country is almost entirely agricultural. The Dominican Republic ranks fourth among Latin American countries in the production of sugar, its chief crop and most important industry. Production of cacao and coffee are next in importance. Other crops are: corn, mandioca, rice, sweet potatoes, beans, and plantains, grown chiefly for domestic consumption. Yucca is cultivated both for its food value and for the manufacture of starch for export. The 1944–45 coffee crop amounted to about 425,000 bags (of 60 kilograms each); production of sugar for the 1944–45 crop year was 368,892 metric tons; in 1945 cacao production totaled 300,000 bags (70 kilograms each).

Processing of agricultural products constitutes the chief manufacturing of the country, which is largely for local consumption. During 1945, however, some exports were made of beer, peanut meal, candles, cigars and cigarettes, sole leather, shoes, hats and furniture.

Foreign Trade. Dominican exports for 1945 totaled $43,564,113. Sugar and molasses accounted for most of the country's export trade; cacao, coffee and yucca starch made a large part of the remainder. Raw sugar exports in 1945 totaled 326,876 metric tons, most of which went to the United Kingdom. Refined sugar amounting to 3,015 metric tons was exported in that year. In 1945 a total of 17,151,229 gallons of molasses were exported; practically all was shipped to the United States. Exports of cacao in 1945 totaled 18,755,048 kilograms, valued at $3,072,948. The exportable coffee crop for 1945 amounted to about 17,288,330 kilograms valued at $4,880,054. The Dominican Republic also exports a variety of fruits, of which oranges are the most important.

Imports into the Dominican Republic in 1945 for the January-July period were valued at $10,074,768. Manufactured and semi-manufactured products, and raw materials are the principal items imported. Textiles accounted for a good share of 1945 imports.

Government. Under the Constitution of 1942, the Dominican Republic is a centralized republic of 15 provinces. It has a bicameral legislature: a Senate of 20 members, and a Chamber of Deputies of 50 members. Members serve for 5-year terms. The president is elected for a 5-year term and is assisted by 13 advisers, 8 of whom are ministers. Generalissimo Rafael Leonidas Trujillo Molina was elected President on May 16, 1942, for his third term.

Events, 1946. During 1946 the scattered political information emanating from the Dominican Republic showed that President Generalissimo Trujillo did not permit oppositionists to freely express themselves or engage in any obvious political activity. In the early months of the year J. A. Bonilla Atiles, dean of the law school at the University of Santo Domingo, after refusing to support President Trujillo, was severely beaten and finally given safe conduct out of the country. Previously, oppositionist Servio Fuentes was shot down in the streets.

A series of earthquakes and tidal waves, beginning on August 4 threw the population of the Dominican Republic into panic, caused the deaths of at least seventy-three persons and left 20,000 homeless. The Fordham University observatory in New York reported that the shock was the most severe recorded on their instruments since the observatory was founded in 1910. For six successive days earthquakes battered cities and towns and tidal waves drove coastal inhabitants into the interior, causing an acute food shortage. The most critical situation existed near Bahia Escocesa (Scotch Bay) where food, clothing and medical supplies were at an extremely low quantity. The Red Cross set up emergency camps in the northern provinces, but thousands of people were forced to live in caves, trees and open fields.

After announcing a free Presidential election for May, 1947, the President ordered the formation of opposition parties. By August the Communist was the only opposition group to make itself known.

During late October demonstrators passed through the streets of Ciudad Trujillo. Reports on the nature of the disturbance were conflicting. In a cablegram to Miami, Florida, Manuel de Moya, secretary to President Trujillo, said that the Communists had attempted a coup.

President Trujillo changed his Cabinet on December 25. He appointed Arturo Despradel to be Foreign Minister, in succession to Manuel Peña Batlle, who was delegated as Ambassador to Haiti. Gen. Fauto Caamano was made Chief of Staff, in succession to Gen. Federico Fiallo, who became Under-Secretary of War.

DOOLITTLE RAID.* The Tokyo Raiders, 80 U.S. Army Air Force volunteers commanded by Lieutenant Colonel James H. Doolittle, steamed into Japanese-held seas aboard the aircraft carrier *Hornet*, April 18, 1942, to strike targets in Japan. Their surprise bombing was the first World War II attack on the Nippon homeland, carried out at a time when the Allied peoples were desperate for a decisive, holding victory. They had looked to the United States for fresh troops and mounting quantities of war equipment to halt the overwhelming Axis blitz.

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* The material for this article was not available in 1942 and is included as a matter of historical record. Hitherto classified Army Air Forces Intelligence reports constitute the source material for this article, and it has been personally checked by Lieutenant General James H. Doolittle for correctness of facts.

Japan had struck at Hong Kong, Manila, Thailand, Singapore, Midway, Wake, and Guam simultaneously with its blow at American naval strength at Hawaii. At Bataan, Filipino-American forces prolonged a hopeless defense to extend the opportunity at home for industrial and military mobilization. Japanese troops had landed in the Netherlands East Indies to seize the Pacific riches: the oil, rubber, tin, quinine, hemp, coal, and iron of Borneo, Sumatra, and Java.

Weeks of planning and rehearsal preceded the American combat minutes over Tokyo. Lieutenant Colonel Doolittle (later Lieutenant General) was called to Washington by High Command officers shortly after the blow at Pearl Harbor and was selected to implement the scheme. Doolittle's strategy was to carry war to the Japanese home territory: bomb Tokyo factories and military installations; shatter the Nipponese delusion of imperviousness; plant seeds of dread in minds that had not yet learned to fear bombers overhead.

Air Force leaders, alert to the power of psychologic warfare, took up the suggestion and began detailed plans for such a raid. Colonel Doolittle, renowned as a pilot, was appointed to train volunteer crews and lead the mission in combat.

The take-off point was to be an aircraft carrier, as there was no Allied land base with runway facilities, from which a fleet of bomb-loaded planes could reach Japan and safely return, left in the Pacific. The stunted runway of a carrier increased take-off dangers, however, and special short-runway instruction was earmarked for the pilots. If the Navy carrier crossed to a point 400 miles off the Japanese coast, as the plans anticipated, raiders could take off at dusk, attack Tokyo in the night, and arrive at China's Chuchow airfield early the next morning.

Success depended upon many hazardous factors, namely: to sneak the *Hornet* past the Imperial Navy; escape detection from merchant ships and stray planes; take-off from a carrier and bomb Tokyo targets before the strategic city could ready anti-aircraft defenses; escape pursuit planes and fly on to China, with shortened fuel supply; slip the *Hornet* back through an alerted Japanese fleet to the safety of the outer Pacific. Success depended upon absolute secrecy and surprise.

February and March 1942 were months of intense preparation. On the West Coast, the *Hornet* was readied to carry B-25 medium bombers on the long voyage. Rendezvous was planned at sea with other destroyers and cruisers, the whole task force to be commanded by Rear Admiral William F. Halsey, destined later to break the back of Japan's sea power.

In a Midwest hotel meanwhile, carefully selected medium bomber pilots were told of a mission that might take them out of the country for a few months. The target was not revealed. The dangers involved were matched only by the urgency of the job; every pilot volunteered for it. No outsider was to have an inkling of the destination nor of the preparation the pilots would undergo, not even their families.

The pilots joined volunteer crews of gunners, engineers, bombardiers and navigators at Columbia, South Carolina; then all flew south to Eglin Field, Florida, where training began. Colonel Doolittle, they soon learned, was a painstaking teacher who filled three intensive weeks with classes and rehearsal.

Lieutenant Commander Henry L. Miller of the Navy was assigned to teach the pilots the intricacies of lifting planes from a shortened runway. Flags posted at distances of 200, 300, and 500 feet marked the shrinking area from which take-off was permitted. Low altitude bombing was introduced, with the disclosure that all planes would carry 500-pound bombs containing 50 percent explosive charges instead of the usual 35 percent charge. The flyers, unaware of their destination or the details of their mission, were mystified by the special training; some decided they were heading for submarine patrols off South America.

Radio equipment was removed from the planes and the secret Norden bombsight was supplanted by simple "twenty-cent sights" designed by Captain Charles R. Greening, one of the group's pilots. Not only would the Norden sight be impracticable at the proposed bombing height, Doolittle explained, but it was also highly possible that some of the B-25s would fall into Japanese hands. Soberly, the men dismantled bottom gun turrets, lightening each ship by 600 pounds.

Over-water flights and long night missions were run with only visual landmarks as guides. To simulate the venture ahead, the bombers swept in over the American coast and fanned out to travel the exact geographical land distances that would confront them over Japan. Low altitude approaches, pin-point bombing, and evasive anti-aircraft dodging were included in each flight, while gunners practiced firing at ground targets. Training ended with a last flight to Fort Myers, Florida, then across the Gulf of Mexico at very low level to Houston, Texas, and back again to Eglin Field. Although additional practice would have improved crew efficiency and teamwork, time allotted for training had run out; the string of bombers took off from Eglin Field for California.

Several days later at the Alameda Naval Base, the airmen were surprised to find the *Hornet* tied up at dock, waiting for them. On April 3, 1942, the flat-top steamed into the Pacific with 16 B-25s loaded on her flight deck. She never reached her destination 400 miles off Japan.

The objective was officially announced on the high seas, confirming the guesses of some of the crews. All the unusual preparations finally fitted into a logical picture. Now, experts lectured on Japanese history, on the differences between Japanese and Chinese philosophies and politics, and especially on geography. Dozens of maps and aerial photos of Tokyo and four important nearby cities were committed to memory.

Each pilot had his specific target, with alternates if the primary target was unavailable. Objectives covered a 50-mile front to include the vital installations in the area, spreading thinly over possible anti-aircraft nests. Doolittle planned to befuddle the Japanese into thinking a much greater number of planes had taken part. The first flight of bombers, led by Lieutenant Travis Hoover, would sweep the northern part of Tokyo; the second, under Captain David M. Jones, was to cover central Tokyo; the third, led by Captain Edwin J. York, was to cover southern Tokyo and the north-central part of Tokyo Bay; the fourth flight, under Captain Greening, was to raid southern Kanagawa, Yokohama City and Yokosuka Navy Yard; and the last flight would proceed to Nagoya and break up—one plane bombing Nagoya, one Osaka, and one Kobe.

Doolittle's plane would take off first, head straight for Tokyo, and lay down clusters of incendiaries to highlight the targets for the flights that followed. American Naval officers familiar with Tokyo, pointed out that seven sizable fires in the Japanese capital would be enough to spread the conflagration so that it could not be extinguished.

It was noted that machine shops probably existed under half the fragile-looking roofs. Emphatic orders kept all planes away from the Temple of Heaven, the Emperor's palace; no bomb could be wasted on a non-military or non-industrial target, for each plane carried only 2,000 pounds of demolition bombs or incendiaries.

As the *Hornet* proceeded slowly westward, care of each plane doubled. Instruments were checked, ships stripped of bare flying essentials, seats adjusted to make movement freer inside the cramped cabins, and ways of carrying extra gas-loads were devised. To stretch 900 gallons of fuel over hundreds of flying miles was a constant worry. Mechanics had previously fixed an extra tank where the bottom gun turret had been, added another in the bomb bay, and installed a collapsible tank in the catwalk above the bomb-bay. On shipboard they loaded 10 emergency five-gallon cans aboard each plane. It still left no margin for error.

Another carrier, the *Enterprise,* joined the task force five days at sea, after which word was passed to every officer and man of the combined force disclosing the purpose of the mission. Naval air squadrons from the *Enterprise* flew search and patrol sweeps every dawn and dusk, maintaining keen watch for Japanese vessels. The task force now consisted of two carriers, four cruisers, eight destroyers, and two tankers.

Tension mounted aboard the *Hornet* as she plowed deeper into Nipponese waters. Finally, she pulled away from the main task force to continue onward towards Japan, accompanied only by the *Enterprise* and four cruisers. Battle stations were manned twice daily.

An unidentified patrol craft was finally sighted on the radar screen at 3:10 a.m. on April 18th, and soon a second ship. Each time the course was changed. The third ship, however, was very close, and undoubtedly sighted the *Hornet;* this made it necessary for the carrier to sink it. It was not known, however, whether the B-25 bombers on the flight deck had been observed, but it was assumed that warnings had been radioed to Tokyo. The chance to maneuver the *Hornet* closer to Japan had passed. To maintain the advantages of a surprise attack and to insure the *Hornet's* escape from dangerous waters, immediate take-off was ordered. At 35° 43′ North Latitude, 153° 25′ East Longitude—800 miles from Japan, instead of the planned 400—the Air Force flyers gunned their motors and prepared for flight.

There would be 824 flying miles to Tokyo, and then at least 1,200 miles further to China, with landings in the East China Sea a likelihood. Doolittle cautioned his men, therefore, to ready their rubber rafts and prepare to row in to the coast in case of a crash landing. Siberia was to be avoided, for the Soviet Union had not declared war on Japan then, and American flyers would have to be interned. In spite of the additional distance hazard, extra B-25 crews aboard the carrier offered their bankrolls for a place in a plane; they found no takers. In those last moments, five more five-gallon tins were loaded in each bomber.

At 8:20 a.m., Doolittle's 31,000-pound bomber pulled up to the starting line. He warmed and idled his motors until the signalman at the flattop's bow flagged him to race them. As the flag swung faster and faster in circles, Doolittle opened his throttles until the plane trembled with the vibrations. The signalman timed the dip of the carrier into each wave to give the B-25 the benefit of a rising deck on take-off. At last he motioned Navy crews to remove the wheel blocks. With flaps down, motors at full throttle and left wing stretching far over the port side, the plane lunged slowly into the gale that swept down the deck. His right wing almost touched the ship's island; the left wheel stuck to a white line painted down the deck; the speed increased, and just as the *Hornet* cut through a wave at the top of its rise, Doolittle pulled his bomber off the deck with only yards to spare. It hung almost straight up on its propellers, then leveled off, came around in a tight circle, and shot low down the line painted on the deck. The *Hornet* was giving bearings; Admiral Halsey had headed it for the heart of Tokyo

Within an hour, every bomber had taken off safely. The planes dived down to water level, clipping the wavetops at 15 or 20 feet, and flew in a long line toward Japan. Pilots had been cautioned not to drop the gas cans one by one as they were emptied, to prevent a trail straight back to the carrier. The raiders spotted no other ships until they were an hour on course and by then they were positive Tokyo had been readied.

Japan, with her mathematically precise farms, appeared surprisingly low in the water when land was finally sighted. People below waved at the American bombers, mistaking the blue circle, white star, and red ball emblems on wings for the red circle of the Imperial Japanese Air Force. Children in school playgrounds looked up, curious; farmers in the fields stopped work to watch the planes just overhead. Then the sudden drone of six Zeros at 1,500 feet spotlighted the reality of the bombing mission. The Zeros did not attack.

Just 30 minutes after landfall, the American raiders flew over Tokyo Bay, then on to the city itself, protected by barrage balloons. The flights split up and headed for the assigned targets, climbing to 1,500 feet for safer bombing altitudes.

Tokyo had been caught napping. Either communications were faulty, or radio warnings had been ignored, for in the streets eight million inhabitants were unaware of the impending attack. Doolittle's bomber roared over a ball park before the players and spectators scrambled for shelter. City-wide explosions a few minutes later wakened them to the actuality of a homeland bombing.

Bomb-bay lights blinked in each plane as the 500-pounders dropped on their targets: a tank factory; a cruiser still in its shipyard; an airplane plant; steel plants; powder factories; machinery works; railroad yards and sidings; docks; arsenals; and oil refineries. Sixteen tons of demolition and incendiary bombs hit practically all primary targets.

The bomb runs were done in just 30 seconds—seconds which had cost months of preparation, and millions of dollars, and might yet cost American lives. The job done, each bomber dived to the safety of housetops and the protective smoke and haze curling at the city's edge. Flak appeared ahead and off to the sides of the planes, missing the B-25s, but destroying some of the city's barrage balloons. Fighter planes, however, came up in pursuit. When several of them attacked Captain Greening's ship, he dived under low hanging power lines while his own gunners shot down two fighters. His gasoline refinery and storage works targets were still visible at a distance of 50 miles, shrouded in flames.

The weather, thus far, had been favorable, but it could not be predicted for the time when the raiders were to leave Japan. Storms rolled eastward off the China shelf at this time of the year with winds that drained gasoline reserves. Out at sea, mist obscured flying vision and rain suddenly spattered on windshields.

The raiders headed south from the Honshu main-

land, sighted volcanic landmarks, Yaku Shima and Sumi Gunto, then navigated due west. Fishing boats were scattered on the China Sea, and one crew sighted submarines refueling from a gasoline tender, but they had no bombs left. Gas supplies were almost exhausted; fortunately the storm wind was at their tails, blowing twenty-five miles an hour toward China.

The Chinese mainland was already dark, with ceiling zero, as the first bombers came in over the shoreline. Forced to climb to 6,000 and then to 8,000 feet over the mainland, the flyers could not discern the landmarks. Doolittle radioed Chuchow, but received no response. Gasoline gone, the time had come to bail out, over land that might be Japanese occupied. At 9:20 p.m., thirteen hours after take-off from the *Hornet*, Doolittle set the automatic pilot and bailed out after his crew.

The valor of those 80 Tokyo raiders set the Army Air Force standard for the years of war that followed. Most of the fliers landed in Free China and walked their way to Chunking. Colonel Doolittle radioed General Ho Yang Ling of the Western Chekiang Province requesting that watch be kept along the seacoast for all planes that might have landed near the beach or had gone down at sea.

The first brief mission report was wired to the Commanding General of the Army Air Forces, Henry H. Arnold, two days later: "Tokyo successfully bombed. Due to bad weather on China coast, believe all airplanes wrecked. Five crews found safe in China so far."

With the help of farmers and Chinese soldiers, thirteen crews eventually reached Chunking. Some had parachuted over occupied China and were hidden away until they could be slipped through to free territory. Contradictory to orders, one crew that was desperately short of fuel, had navigated the shorter route to Siberia. The plane was landed successfully and the crew interned; later, they were returned to American control.

Lieutenant Ted Lawson, as a result of a crash landing, had to have his left leg amputated. Corporal David Thatcher, turret-gunner in Lawson's plane, persuaded Chinese fishermen to carry his injured mates to temporary safety around enemy outposts and bound up their wounds.

Of all the men who parachuted in the night, three were killed in accidents: Corporal Leland D. Faktor was found in the mountains, believed to have had a second and fatal fall after reaching the ground; Sergeant William J. Dieter and Corporal Donald E. Fitzmaurice were found dead on the shore of a river. Japanese troops captured the eight remaining fliers.

Efforts were exerted to buy the freedom of the eight fliers taken prisoner, but without success. The men were charged with bombing non-military targets and schools, and strafing innocent children. The charges were completely unfounded, but at a ludicrous trial in which no American testimony was translated for a Japanese tribunal, the fliers were condemned to death. Five sentences later were commuted to life imprisonment "by the gracious consent of the Emperor," and prison treatment involved months of solitary confinement and beatings. Lieutenants William Farrow and Dean Hallmark and Sergeant Harold Spatz were executed. Lieutenant Jay R. Meder carved on the wood floor of his cell the message: "Please notify US Army. Life imprisonment." He died in prison of beri-beri. Four survivors were returned to the States at war's end in 1945.

Official release of the Tokyo Raid was withheld until the majority of the raiders reached Free China, in order to protect the Chinese towns that had aided the fliers. As well, it was of special urgence that the *Hornet*'s presence in Japanese waters remain secret until the carrier had eluded all warships and reached the outer Pacific. In the months that followed, Nipponese tension was at a peak, for the starting point of the raiders remained a mystery; as the Americans planned, the Japanese conjectured there might yet be some secret base in the North Pacific, or a nearby aircraft carrier, or equipped airfields in Free China. Japanese merchant ships fine-combed the sea, and the Imperial Staff was forced to reassign crack air squadrons to homeland defense.

By all military counts, the Doolittle mission was successful. Demolition bombs wrecked or badly damaged war factories, communication arteries, ammunition stores, military barracks, and oil and storage warehouses.

The psychologic damage was inestimable. The Nipponese were no longer impervious; instead, they commenced to watch and wait for further bombings. Fire-fighting brigades were enlarged, anti-aircraft defenses expanded; in a thousand ways, the people fearfully prepared for other raiders. War production efficiency was reduced. Most important of all, air interception squadrons were strengthened in the homeland, thus reducing enemy air units in the Pacific and China.

Information gathered over Tokyo colored future Air Force strategies. It was plain that Japanese communications were loosely organized and slow to act. Even the city of Kobe, raided one hour after Tokyo, had not been warned. Enemy troops on the mainland were inferior to overseas fighters. Their anti-aircraft was inaccurate as was the fire directed from pursuit planes.

Colonel Doolittle recommended that American war plants be dispersed over broad areas and camouflaged expertly, a lesson learned from the omission of Japan to carry out such a program. It was also imperative to equip small boats with radios and simple codes, to serve as plane detectors and speedily warn coastal cities. To complete coastal security, modern planes and trained interceptor pilots would have to be retained at key fields within the States.

Modifications in equipment were also recommended. Combat had tested guns, gunsights, turrets, fuel pumps and other instruments in the B-25; improvements were possible. Most work had to be done, however, with personnel training and preparation. The raiders had had little chance to perfect their gunnery and not enough time to operate as a team. Their experience modified Air Force training programs so that later crews approached combat with clock-like precision and the fluid cooperation of highly effective fighting units.

Distinguished Flying Crosses were awarded all the Tokyo raiders, while grateful China added her coveted Military Order honor. Lieutenant J. R. White, a flight surgeon who had risked his life to give medical aid to crash victims, and Corporal Thatcher each received the Silver Star. Doolittle was decorated with America's highest award, the Congressional Medal of Honor, "for conspicuous leadership above and beyond the call of duty, involving personal valor and intrepidity at an extreme hazard to life."

The Tokyo raiders had given new incentives and a glimpse of the inevitable victory to Allied fighters everywhere.

DUKE ENDOWMENT. A foundation created by James B. Duke in 1924, known for its connection with

Duke University, hospital work, and a number of other activities in the Carolinas. The Endowment is a permanent one with a self-perpetuating board of 15 trustees. Except for the $17,000,000 spent in erecting and equipping Duke University, it is not authorized to expend any of its principal. A report covering its first twenty-one years, ending December 31, 1945, showed that the Endowment had distributed and allocated $62,975,607 as follows: Duke University, $35,312,858; hospitals, $18,837,852; Davidson College, $1,510,025; Furman University, $1,508,650; Johnson C. Smith University, $1,069,531; orphanages, $2,437,189; superannuated Methodist preachers, $496,691; rural Methodist churches, $855,828 for building and $946,981 for operations. Chairman of the Trustees: George G. Allen. Headquarters: Power Building, Charlotte 1, North Carolina.

ECUADOR. A republic of South America. Area: National territory, including the Galápagos Islands, and following settlement of the frontier dispute with Peru, is estimated to be 259,790 square miles. Population: 3,171,376 (1943). Capital: Quito.

Ecuador is divided into three regions: coastal, sierra or Andean highlands; and Oriente or Amazon region. The climate varies from tropical in the eastern and western lowlands, through temperate in the plateaus, to cold on high mountain peaks.

The People. The people of Ecuador are almost evenly divided between Indians, who live in the Oriente, and those of Spanish and Indian origin who live in the coastal zone. About 4 percent of the population are Negroes, living mostly in the tropical coastal lowlands. The largest cities are: Quito, 165,924; Guayaquil, 172,948; and Cuenca, 52,519.

Spanish is the official language, but Indian dialects are widely spoken and taught in some communities. Roman Catholicism is the predominant religion.

It is estimated that 38 percent of the population is literate. In 1942 there were 3,181 primary schools with a total of 275,046 students, 70 intermediate schools with 11,193 students, and 4 universities with a total enrollment of 1,885.

Government. Ecuador is a centralized republic of 17 provinces. (The Galápagos territory was given provincial status in 1945.) The Constitution of 1945, succeeding the Constitution of 1906, provides for a unicameral legislature, the Chamber of Deputies, composed of 3 deputies for each province having up to 150,000 inhabitants and increasing by 1 deputy for each 75,000 additional inhabitants. Two deputies will be elected by each of the eastern provinces as long as their population is less than 150,000, and the Galápagos Islands will elect 1. There will also be "functional" deputies representing certain business and professional groups. The Congress will meet annually on Aug. 10 for 90 days. Deputies are elected for 2-year periods. The president is elected for a 4-year term. Dr. José María Velasco Ibarra has been President since May 28, 1944.

Events, 1946. By the end of March, the relative political tranquillity that followed the ousting of President Arroya del Rio in May, 1944 and the Congressional election of Dr. José Velasco Ibarra to the Presidency, was broken. During the early months of 1946 a steadily rising cost of living and increasing friction between the various Ecuadoran political parties provided signs of general unrest.

The impending crisis broke into the open on March 30 with the Government announcement of the discovery of a plot to assassinate leading members of the Velasco regime. Censorship was imposed and constitutional liberties withdrawn as the Government arrested more than thirty leftist political leaders and retired army officers. Among those arrested and deported to Peru were former President (1937–38) Alberto Enríquez and Congressman Julio Teodoro Salem. The suspension of liberties and the padlocking of the Tribunal of Guarentees, the only agency with the power to deport, brought protesting crowds into the streets of Quito and demonstrations by the students of the Central University. On April 5 President Velasco reported the full restoration of freedom of the press and other constitutional guarantees. Expressing the hope that full normality would return within two weeks, he promised that the Congressional elections, called for May 5, would be "absolutely free." The crisis of March 30 did not quickly expire, for on April 10, Carlos Cueva Tamariz, second Vice-President of Congress, summoned his colleagues to a meeting where it was quickly agreed to hold a special Congressional session on April 16 to consider the situation created by the Velasco decree. Notice of this move was followed by the arrest of Cueva Tamariz.

The decision to call a Congressional election, as announced by the President, developed into a crucial issue as all political parties lined up against the proposal. According to the Constitution a call had to be issued thirty days prior to the election date. Despite Velasco's desire to hold the elections as scheduled, a tie vote in the Supreme Electoral Tribunal balked the call. Opponents claimed that abnormal times proved a poor basis for a free election. When Velasco issued the call himself, the Liberal, Socialist, and Communist parties, which had originally supported him, refused to participate in the elections. The Conservatives were at first amenable to the election date, but then agreed that the time was not favorable and united with the Liberals on a counter-proposal. They suggested that the election of a regular Congress be dropped in favor of a Constituent Assembly which would rewrite the 1945 Constitution.

President Velasco agreed to the suggestion on April 12 and later established the election date for June 30. Post-election plans provided that a special committee would draw up a draft Constitution for Assembly consideration on August 10. After a thirty-day period of discussion the Constitution would be adopted by the Assembly, which would then become a regular Congress.

The proposal was rejected by the Socialists and Communists on the grounds that there were insufficient guarantees for a free election and later by the Liberals who decided that a free election could not be held while many leftist leaders were in prison or exile. The refusal of the leftist parties to participate in the elections left only the Conservatives, the dominant party, and the UPERRA (Unión Popular Republicano) with candidates.

Registration of voters—made compulsory by the Constitution—showed a record total of 304,000. Of the sixty-two seats open, Conservatives won thirty-three, dissident Liberals twenty, and independents and minor parties the remaining nine. Several thousand ballots were left blank in objection to the elections.

During the early weeks of July little news filtered out of Ecuador. Public unrest reportedly increased to an extent where the Conservatives publicly promised to request Velasco's resignation. Fearing the appointment of a Conservative President, the Communists promptly came to Velasco's support, and in the ensuing hue and cry, the Conservatives

agreed to Velasco's Presidency if Interior Minister Carlos Guevara Moreno were removed. On July 31 several army officers and political leaders were imprisoned.

The initial meeting of the Constituent Assembly on August 10 witnessed the re-election of Velasco and the quick frustration of a revolutionary coup. An armed group of civilians, attempting to storm the Ministry of Defense, was repulsed after two of the revolutionists were injured by guards. Hector Vasconez, Liberal leader, and several Socialists were ordered arrested.

Contrary to the rumored indications that the Conservatives would not reappoint Velasco were he to resign, the President won an easy 43 to 10 victory.

The favorable vote, however, belied a basic conflict between the President and the Conservative-dominated Assembly. Against the opposition of Velasco, the Assembly proposed changes to the Constitution by removing many accomplishments of the liberal Governments that had been predominant since 1900. In quick succession the Assembly eliminated the Constitutional sanction for divorce, proposed to return tracts of farmland to religious orders from which they had been taken almost fifty years earlier, and voted to pay state subsidies to private schools, most of which were Catholic. Velasco's insistence that all education be given equal respect forced a change in the Constitution from "Lay education in the secular sense shall be free" to "Education shall be free."

The new Constitution prohibited confiscation of property and provided that remuneration be made in cases of expropriation for public benefit. Quito newspapers reported that freedom of the press was permitted by the Constitution, so long as calumny, insults, and information contrary to public interest are avoided.

On November 29 the Assembly voted again on the Presidency and approved the continuation of Velasco's term of office until September 1, 1948.

The United States occupation of Seymour Island in the Galápagos group, which began on December 11, 1941, ended early in July. The island, 323 miles off the coast of Ecuador, was used during the war as an airbase and a western outpost for the defenses of the Panama Canal.

National Economy. Ecuador is primarily an agricultural country. Rice, cacao, and coffee are the leading crops, but sugar, corn, potatoes, barley, wheat, bananas, and other fruits are also important. Cattle and sheep raising is the leading pastoral industry. Forest products, including rubber, balsa wood, kapok, and tagua nuts are exported. In 1945, rice production totaled 3,000,000 quintals; cacao production amounted to 310,000 quintals; and the coffee crop totaled 320,000 quintals.

Ecuador's principal mineral products are petroleum, gold, silver, and copper. In 1944 production of crude petroleum rose 25 percent above 1943 and totaled 121,471,895 gallons; refined petroleum products rose 17 percent to 40,371,029 gallons.

There is little manufacturing in Ecuador, textiles making up the leading industry. Shoes, cement, sugar, flour, soap, and candles are produced for the home market, and toquilla (Panama) hats are exported.

Foreign Trade. Ecuadoran exports in 1944 totaled 466,630,308 sucres. Major products exported were: rice, coffee, cacao, rubber, Panama hats, balsa, and bananas. In 1944 crude petroleum exports totaled 1,964,700 barrels. The U.S. is the leading market for Ecuador's exports, taking 85 percent of the cacao and 89 percent of the coffee exports in 1943 and 1944. Other important purchasers are Cuba, Peru, Venezuela, and Chile.

Imports in 1944 were valued at 331,155,885 sucres. Principal imports include: foodstuffs, beverages, cotton textiles, pharmaceuticals, machinery, metals and manufactures. In 1943 and 1944 the United States supplied about one-half of Ecuador's total imports. Other leading sources of imports were: Peru, Argentina, Mexico, Great Britain, and Brazil.

JOSEPH P. BLANK.

EDUCATION. The most important development in education, during the first full year of peace after World War II, was in the field of international educational relations as the educational leaders of many countries sought new and better ways of promoting understanding and cooperation among all peoples.

The United Nations Educational, Scientific and Cultural Organization came into full being in 1946. Its constitution was drawn up in November of 1945, and its Preparatory Commission set up a secretariat which began work early in 1946. Throughout the winter, spring, and summer months the secretariat worked in London as provided in the constitution until the organization should come into full being and move to its permanent seat in Paris. The secretariat had the help of several reviewing committees in various fields during May and June. At a meeting of the Preparatory Commission in July, it was agreed that UNESCO should concern itself with international problems, and should examine national problems only as they had international educational, scientific, or cultural implications. The Preparatory Commission also declared that UNESCO should make full use of all existing agencies and facilities, stimulating them to action, bringing them into being in areas where they did not exist, and undertaking to operate programs itself only when all other measures fail.

The Preparatory Commission submitted a progress report on the program of the organization in August. In this report it made extensive recommendations concerning the principles under which UNESCO should operate, the secretariat of the organization, and the character and scope of recommended activities in the fields of education, mass communications, cultural institutions, natural sciences, creative art, and the social sciences and humanistic studies.

In the field of education the Preparatory Commission suggested that UNESCO should collect and disseminate educational information, coordinate the work of other agencies, stimulate other agencies and facilitate their work, initiate educational projects, and operate educational programs in fields where they are most needed, and where an international agency is necessary. Among the specific jobs proposed for the organization were: a study by a small committee of methods of teaching international understanding; sponsoring of citizenship clubs in schools of various nations; encouraging voluntary organizations to establish young people's work camps in devastated countries; convening an international conference on adult education; surveying provisions for education in the field of international relations; operating an international educational seminar in the summer of 1947; and studying the textbooks of schools in relation to the development of better international understanding.

The Preparatory Commission proposed also that the organization should launch an attack upon

ignorance throughout the world by helping all its members who desire such aid to provide a minimum or "fundamental" education for all its citizens. Other proposals of the Preparatory Commission related to health education, the improvement of educational methods, vocational training, selection and guidance, handicapped children, educational statistics, an educational yearbook, and an international education newsletter or review.

These proposals in the field of education together with proposals in the other fields of UNESCO's interest were submitted to the first annual conference of the organization held in Paris, November and December, 1946. At the opening of this conference over twenty nations had formally accepted the constitution of the organization and had sent representatives to the Paris meeting. Julian Huxley of England was appointed the first director-general of the organization and plans for setting up a permanent secretariat were initiated.

In accordance with Article vii of the UNESCO constitution the United States govenment appointed a National Commission for cooperation with UNESCO. This commission is composed of sixty representatives of national educational, scientific, and cultural organizations, fifteen distinguished leaders in these fields chosen from the country at large, fifteen persons employed by state and local governments, and ten persons employed by the federal government. The United States National Commission met in September, 1946, and carefully reviewed the proposals of the Preparatory Commission and prepared recommendations for the American Delegation to the general conference in Paris. The education members of the National Commission supported strongly the study of means of teaching better international understanding. They favored the calling of conferences and the carrying on of researches on the causes, treatment, and outcomes in terms of individual and group tensions, of all handicapping defects and deficiencies, physical, intellectual, and educational, both among children and adults. They also supported conferences on adult education, international education, and textbook revision.

Activities relating to UNESCO were only part of the large number carried on throughout the world in the area of international education. The International Bureau of Education sponsored the Ninth International Conference on Public Education in Geneva in March. The governments of thirty-six nations were represented and reports from various countries on postwar school reforms were given.

In September and October, the first postwar international conference of the New Education Fellowship was held in each of the six states of Australia. The theme of the conference was "Education for International Understanding." Many organizations in various countries increased their grants for student exchanges with other countries. An example of such effort in the United States was offered by the American Association of University Women, which gave grants to thirty-nine women students from Europe to enter American colleges and universities during the year.

A group of educational organizations in the United Kingdom and a similar group in the United States with the technical help respectively, of the United Kingdom Ministry of Education, and the United States Office of Education arranged an exchange of teaching positions among 148 British and American teachers.

The so-called Fulbright Bill was passed by the Congress but did not come into effective operation during the year. This bill provides that surplus property of the United States in foreign countries may be purchased by those countries, and a substantial proportion of the payment may be used in the promotion of exchanges of teachers, students, and other educational, scientific, and cultural workers with the United States.

At the invitation of the National Education Association of the United States representatives of teachers' organizations from twenty-eight countries met at Endicott, New York, during the last two weeks in August, and established a World Conference of the Teaching Profession. They drew up a constitution and a program for cooperation with UNESCO and other international agencies, in the improvement of educational facilities and the elevation of the status of teachers throughout the world.

Also, during August a World Congress on Air-Age Education was held in New York City.

Problems of meeting the educational needs of war-devastated areas were attacked by a technical subcommittee of the Preparatory Commission of UNESCO which collected information from various countries concerning the most pressing needs of schools and other educational, scientific, and cultural agencies in such countries. In June the American Council on Education announced the establishment of a Commission for International Educational Reconstruction with representatives from about twenty major educational organizations and agencies of the United States. This Commission set itself the tasks of informing the American people of the needs of the war-devastated countries for educational assistance, of assisting member organizations in planning effective programs of educational rehabilitation, helping the organizations to ship supplies, offering scholarships, and sending educational missions.

Problems of the re-education of occupied countries received considerable attention during the year. In February and March the United States Department of State and Office of Education provided the Department of War with an education mission to advise the supreme commander of the allied powers in Japan on policies of educational improvement in that country. A similar mission was sent from the United States to the office of the military government of the United States in Germany during August and September. Both missions gave detailed reports and recommendations to the military government authorities and to the educational leaders of the countries concerned.

On July 13 President Truman appointed a National Commission on Higher Education to reexamine the system of higher education in the United States in terms of its objectives, methods, and facilities, and in the light of the social role of higher education. The commission was asked to consider methods of expanding school opportunities for all able young people and means of paying for such expansion.

The tremendously expanded enrollments in the higher educational institutions of the United States, which were largely responsible for the formation of the National Commission on Higher Education, appeared to be largely, but by no means wholly, brought about by the return of veterans of the armed forces to their college and university work. Many special devices and agencies for extending the services of the colleges were employed. Teaching centers were establishd off-campus by many universities, and a large number of junior colleges

and one-year and two-year extensions of secondary education were inaugurated.

Among the various new types of collegiate education developed during the year one of the most spectacular was that offered by the new Roosevelt College of Chicago, Illinois. This college, established in 1945, by the fall of 1946 had more than trebled its original enrollment of 1,200 students and had approximately doubled its original faculty of eighty-four. Its unique features, however, came from its constitution rather than from its enrollment. Its Board of Directors included members of its faculty and representatives of management, organized labor, cooperatives, education, press, and judiciary in its community. The president and the deans of the college held office by reason of a vote of confidence which had to be secured every three years.

Shortages of properly educated teachers continued to be very grave throughout the world. In the United States the National Education Association Commission on Teacher Education and Professional Standards recommended a minimum salary for a teacher who had four years of college preparation of $2,340 per year, to be paid on a fifty-two week basis and to advance by annual salary increases to $4,000 a year. The Commission also recommended classes of 25 to 30 pupils in high schools, organized on a departmental basis, and total loads of not more than 100 pupils in classes and in extra-curricular activities for each teacher. The Commission pointed out that effective tenure, retirement, and tax legislation would be necessary to meet these recommendations. It noted that the United States was spending 1.5 percent of its national income on elementary and secondary education as compared with approximately 2 percent of the national income in England and 5 to 8 percent in the U.S.S.R. Substantial federal subsidies of education were obviously necessary, according to the Commission.

Proposals for federal aid of education in the United States drew strong bi-partisan support in Congress. A bill to provide $1,500,000 for the fiscal year 1947, $2,000,000 for 1948, and $2,500,000 for each year thereafter to support a minimum program for education in the country, with state control of education carefully safeguarded, failed to be enacted in the Seventy-Ninth Congress. The Senate Committee on Education and Labor reported the bill favorably, but the House Education Committee refused by one vote to report the bill for favorable action.

More than three million veterans of the United States armed forces applied for education and training in 1946. More than one million of these veterans were enrolled in colleges and universities in the fall of 1946.

Throughout the world new emphasis was placed upon the teaching of foreign languages, particularly those foreign languages which were coming into wider use as international languages. Along with the teaching of these languages was an increase of instruction in the history, political institutions, society, and economy of the countries using the languages. In the United States many universities introduced study of Russian and Chinese, with some of the larger universities establishing Russian institutes and centers for Slavic studies. New attention was paid to the study of Arabic in American and British universities.

In the United States a special attempt was made to evaluate the various methods and devices of instruction employed by the armed forces during the war. The American Council on Education sponsored a comprehensive review and evaluation of the contributions of the armed forces to educational methods.

HAROLD BENJAMIN.

EDUCATION, U.S. Office of. During the fiscal year ending June 30, 1946, the United States Office of Education sought in many ways to provide effective leadership and assistance to the schools and colleges.

General Services. Basic statistical data concerning education in the United States continued to be collected and compiled by the United States Office of Education during 1946, together with special studies undertaken to meet requests from other Government agencies to the general public. Data included studies of school and college enrollments, land-grant colleges, college income and expenditures, and expenditures per pupil in city school systems.

The Office cooperated with organizations and agencies both outside and within the Government in a variety of special war and postwar services including the following: the utilization and disposal of surplus property for educational use; cooperation with the President's Famine Emergency Committee; programs of health and physical education; work-school programs; the school lunch program; and the educational problems relating to the return of veterans to high schools and colleges.

Special attention was given to expanding programs for exceptional children, Negroes, Spanish-speaking groups, the children of migrant workers, and rural youth; the reorganization of administrative units and school programs to meet postwar needs; and the nutritional problems of pupils. Studies were made of school building needs, school lunchroom equipment, compulsory school attendance, juvenile delinquency, visiting teacher work, health and physical education, the public expense of supplying textbooks and other instructional materials, pupil transportation, pupil personnel services, curricular planning, preliminary plans to inquire into the teaching of United States history in secondary schools, and recreation services for children and youth.

Elementary Education. Throughout the year, specialists in the Division sought the solutions to several major problems facing elementary education as they undertook to serve the Nation's schools. The continuing teacher shortage, which called for the issuance of thousands of emergency teaching permits in the elementary schools, emphasized the necessity of giving widespread services on supervisory and instructional problems, education of exceptional children, and teacher education.

Elementary education activities in supervision and instructional services centered on conferences, workshops, and committee group effort. Bibliographies of courses of study and a guide to developing a unit of work were prepared and distributed. Special attention was given to broadening the school curriculum in the fields of nutrition education, for which a cooperative follow-up report was issued; fire safety, with a working conference and the preparation of a curriculum guide; conservation education; teaching about Latin America; and intercultural education. Extensive consideration was also given to health education and science in the elementary grades.

One of the foremost challenges was that of juvenile delinquency, and closely related was the problem of achieving closer parent-teacher cooperation. Workshops on extended school services, with sections on parent education were held in teacher

training institutions, and the Office gave intensive assistance in this field.

The postwar period brought such unprecedented demands for service in the development of State and local programs for the education of exceptional children that the Office restricted its research projects in this area in order to extend its assistance in the field. The agencies served included State and local school authorities; national, State and county societies for crippled children; State and national parent-teacher groups; the Attorney General's Conference on Juvenile Delinquency; the Children's Bureau; and a number of other interested personnel and organizations. In cooperation with a group of curriculum and guidance specialists, an extensive study of curriculum adjustments for gifted and talented children was completed and the report published by the Office. Other materials published on exceptional children discussed the facilities and methods needed in the schools for the adjustment of the physically, emotionally, and mentally handicapped.

The shortage of trained teachers was an ever-present problem involving a vast amount of research and close cooperation with national, State, and local organizations. Two meetings of the Association of State Directors and Supervisors of Elementary Education were held during the year to consider ways of meeting this situation and of improving elementary education. With the sponsorship of the Office, committees of this organization were appointed to give intensive study to the major problems involved and to develop plans for increasing cooperation and mutual service among the respective State supervisory staffs.

Secondary Education. In the decade 1930 to 1940, secondary school enrollments increased 10 times as fast as did the population group 14–17 years of age. Within the past two years, as funds became available, the Office of Education reorganized and expanded in order to keep pace with such phenomenal development. In 1946, specialists in Secondary Education were able to devote full-time services to science, school organization and supervision, rural education, health education, tests and measurements, instructional problems, and the social sciences.

An Advisory Committee on Secondary Education, called by the U.S Commissioner of Education in 1946, advocated that the Office of Education exercise vigorous leadership in the field of guidance "both with respect to State departments of education and local schools and school systems." Another fundamental concept on which the Committee expressed concern was the need for coordination among the various subject areas. The fields of family life, health, recreation, and consumer education were considered significant. Of further immediate concern was the holding power of the secondary school; no more than 73 percent of our youth have ever attended high school, and the survival rate for those who do attend is of such critical proportions that the offerings of the secondary school are due for reexamination.

Secondary specialists, together with vocational specialists, spent particular effort during the past year in helping to implement the Prosser Resolution, which proposes to focus the attention of the schools on the development of a curriculum adequate to satisfy the needs of the majority of our youth, namely, the 60 percent who are destined neither for college nor for skilled occupations.

Other activities concerned a going program of projects undertaken in cooperation with State departments of education. The return of veterans to high schools profoundly affected the service given by the high schools of the nation, and necessitated studies of the various provisions developed by the States, cities, and individual schools. Such studies promise far-reaching results. The widespread use of aptitude tests in World War II may also have significant contributions to make to testing programs in secondary schools.

Vocational Education. Three major fields of activity, in addition to administration of the federally aided program of vocational education, were engaged in by the Vocational Division during the fiscal year ending June 30, 1946. They were: (1) closing-out of wartime interests and activities; (2) salvaging useful assets from joint State–U.S. Office of Education war training programs; (3) assisting the States to accomplish objectives set forth in "Vocational Education in the Years Ahead," a report of a committee on vocational training problems in the postwar years.

Future programs in transition of agricultural education from war to peace look toward the following: (1) establishment of area schools in several States where they are needed to permit rendering more effective service to farmers; (2) rebuilding and strengthening of Future Farmers of America and New Farmers of America by resumption of activities that were curtailed during the war; (3) placing of additional emphasis on in-service training programs for employed teachers of vocational agriculture in order to permit upgrading of war emergency teachers and offering refresher courses to teachers just out of the armed forces.

The Veterans' Administration, in cooperation with the U.S. Office of Education, organizes and administers veterans' agricultural training. After passage of the Servicemen's Readjustment Act of 1944 (Public Law 346), Veterans' Administration felt that already established State facilities of the Office of Education's Agricultural Education Service should be utilized along with facilities of the Veterans' Administration to care for veterans who expected to farm. Accordingly, uniform policies for veterans are worked out in a series of conferences.

To assist them in making adjustment from wartime to peacetime business education programs, the States were given constructive help in (1) rebuilding supervisory staffs, (2) expanding teacher training, (3) laying out long-term occupational training programs, (4) developing bases for cooperation with trade, professional, and educational associations, and (5) planning cooperative research programs.

At the beginning of the fiscal year, 16 States were without the services of a State supervisor for distributive business education. In accordance with the recommendation of "Vocational Education in the Years Ahead," the Division encouraged employment of head supervisors of business education who would be qualified to give leadership and direction to all phases of their programs.

Major emphasis had to be given to rebuilding and expanding training facilities available to teachers both before and during their employment and expanding training facilities available to teachers both before and during their employment in the profession because of the following developments: (1) the de-emphasis of preservice training that was inevitable during the war, particularly in the case of teachers and coordinators in distributive education; (2) the serious shortage of qualified teachers, coordinators, and supervisors in every phase of business education; (3) the rapid turnover of both teaching and supervisory personnel;

(4) recognition of the need for greatly expanded local programs.

Research activities of the Business Education Service included a series of job analyses made in cooperation with the personnel group of the National Retail Dry Goods Association and the education committee of the National Restaurant Association. To lay the groundwork for cooperative part-time retailing classes, investigation was made into specific subject matter content, relative importance of instructional topics, job profiles in retail organizations and selection of students.

A staff member of Home Economics Education served as school lunch consultant for the Southern States Work Conference at Daytona Beach, Fla., participated in the school lunch supervisors' and managers' workshop at Teachers College, Columbia University, and helped prepare lists of equipment for school lunches for the Surplus Property Board.

A staff member also served as consultant to the home economics research committee of the American Vocational Association in drawing up a national study of factors affecting supply of home economics teachers. Assistance was given in further development of the Future Homemakers of America and New Homemakers of America, both organized in 1945. Fourteen national organizations were given assistance and thirteen different divisions of five other government agencies were given cooperation in problems of home and family living.

As most States during the war continued their trade and industrial education programs provided for under the Smith-Hughes and George-Deen acts, the termination of war production training programs did not pose reconversion problems. Throughout the war, State boards for vocational education were advised by the Trade and Industrial Education Service not merely to continue their regular programs but also to maintain standards. Among contributions made by the war programs to the regular trade and industrial education program are development of more effective teaching methods and establishment of trade education on a firmer footing.

Assistance to State boards, appearance on State and national fire-training programs, preparation of instructional materials and work with such organizations as the American Municipal Association and the Federal Bureau of Investigation to improve employee efficiency were among outstanding activities of the public service training consultant.

In extending facilities of the Occupational Information and Guidance Service to many phases of the guidance program, the field specialist visited 27 States, 56 cities, and 17 colleges and participated in one national conference, two regional conferences, and 12 State conferences. Through field visits, correspondence and conferences, the States have been made aware of the idea that guidance is a school responsibility and that each staff member must contribute to the program. At a national conference of State supervisors held in Denver, Colorado, fifty State supervisors, counselors, trainers, and school officials from 33 States considered programming and administration.

Higher Education. The transition period of war demobilization and reconversion brought unprecedented demands to higher education as more than a half million veterans and a backed-up flow of tens of thousands of young war workers joined the regular college population. Accompanying this unparalleled pressure for college service were serious shortages of qualified college teachers, college housing, and plant facilities.

To help meet the need for more and better qualified teachers, the Office prepared and disseminated materials useful in placing, recruiting, certifying, and employing teachers. In addition, the Division helped to set up certain criteria by which the War and Navy Departments agreed to release members of the armed forces for duty as college teachers. More than 500 men and women were thus released. Near the end of the fiscal year, the Office of Education was authorized by Selective Service to certify essential college teachers for deferment.

Specialists in the Division responded to requests from college officials for assistance in adjusting their programs and physical facilities, as well as their staffs, to the college population. The Division provided information and services to institutions on how to qualify for and secure from government surplus the additional facilities needed. These services included cooperating with the program for providing student housing for veterans through the Federal Public Housing Authority; formulating criteria for the use of the Civilian Production Administration in granting priorities to colleges for the use of scarce construction materials and screening cases that did not clearly meet the criteria; and evaluating requests made to the Federal Housing Authority for priority materials for faculty housing.

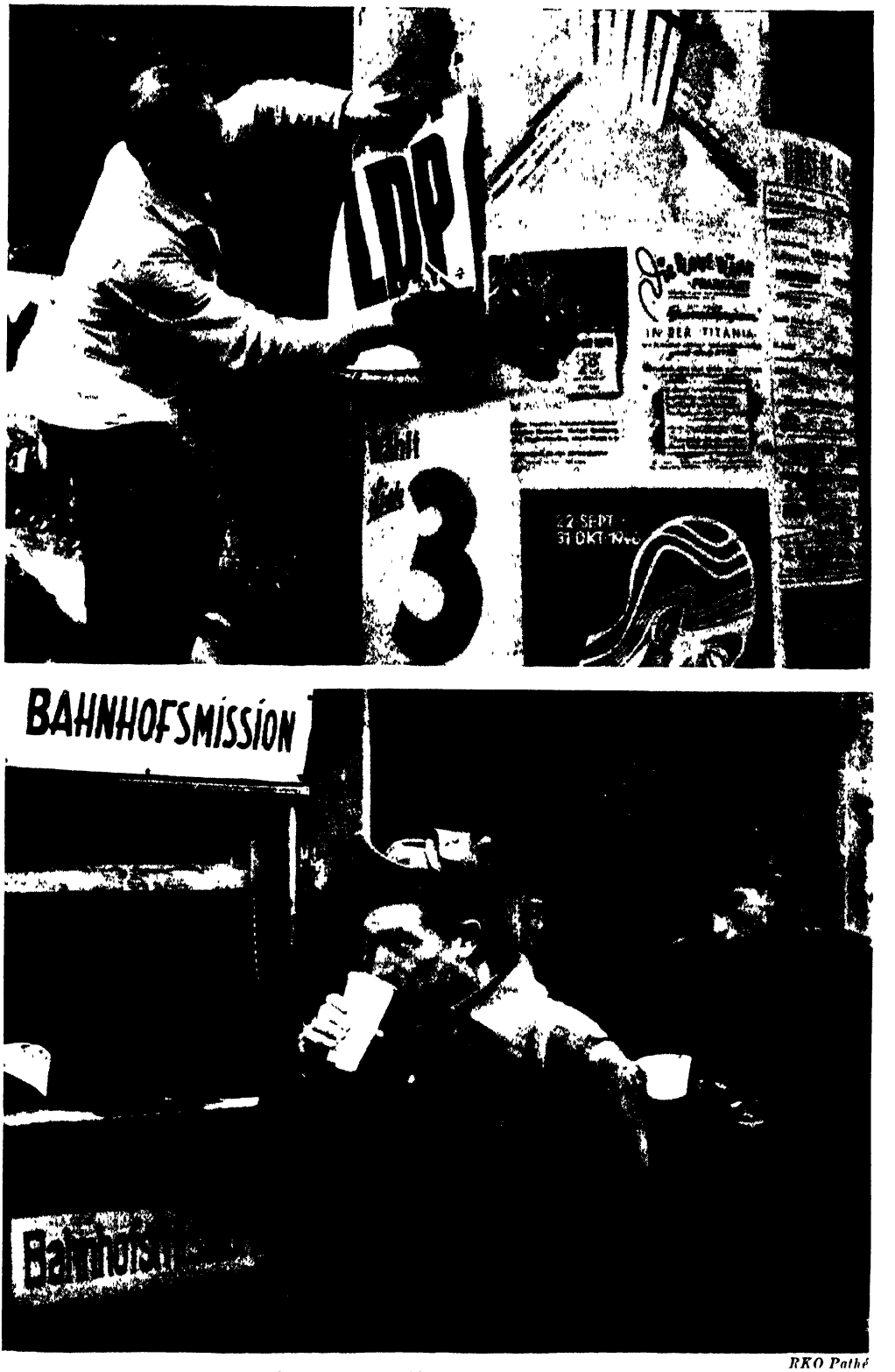
During the year the staff members of the Division carried on their work in the field of curriculum and course revision with an emphasis intensified by the growing consciousness of the new role of America in international affairs, of the need for more effective civic instruction, of new applications of the physical sciences, and of new developments in health, transportation, construction, and other fields.

The study of vocational education of college grade, which was initiated during the previous year, was completed. Late in the year a specialist in engineering education was added to the regular staff. The desirability of providing services to more than 150 engineering colleges and nearly 130,000 engineering students had been indicated by postwar demands for engineering information and personnel.

Extensive projects designed to improve and promote the education of Negroes were intensified throughout the year. Consultative and advisory services were continued as in previous years and the following agencies and institutions are typical of those served: Association for the Study of Negro Life and History, Bureau for Intercultural Education, Conference of Presidents of Negro Land-grant Colleges, United Negro College Fund, National Conference on Adult Education and the Negro, National Council of Negro Women, Lincoln University, Hampton Institute, Howard University, U.S. Public Health Service, and the National Education's Steering Committee on Education in the Cotton Belt.

Other services carried on by the Division included the following: consultative service to the American Association of Dental Schools, the American College of Dentists, and the National Association of Dental Examiners; a survey aimed at making an evaluation of certain programs and needs of Howard University and considering the relationship of the Federal Government to that institution; the preparation and publication of the periodical, *Higher Education;* and the preparation and publication of Part III, Colleges and Universities of the *Annual Educational Directory.*

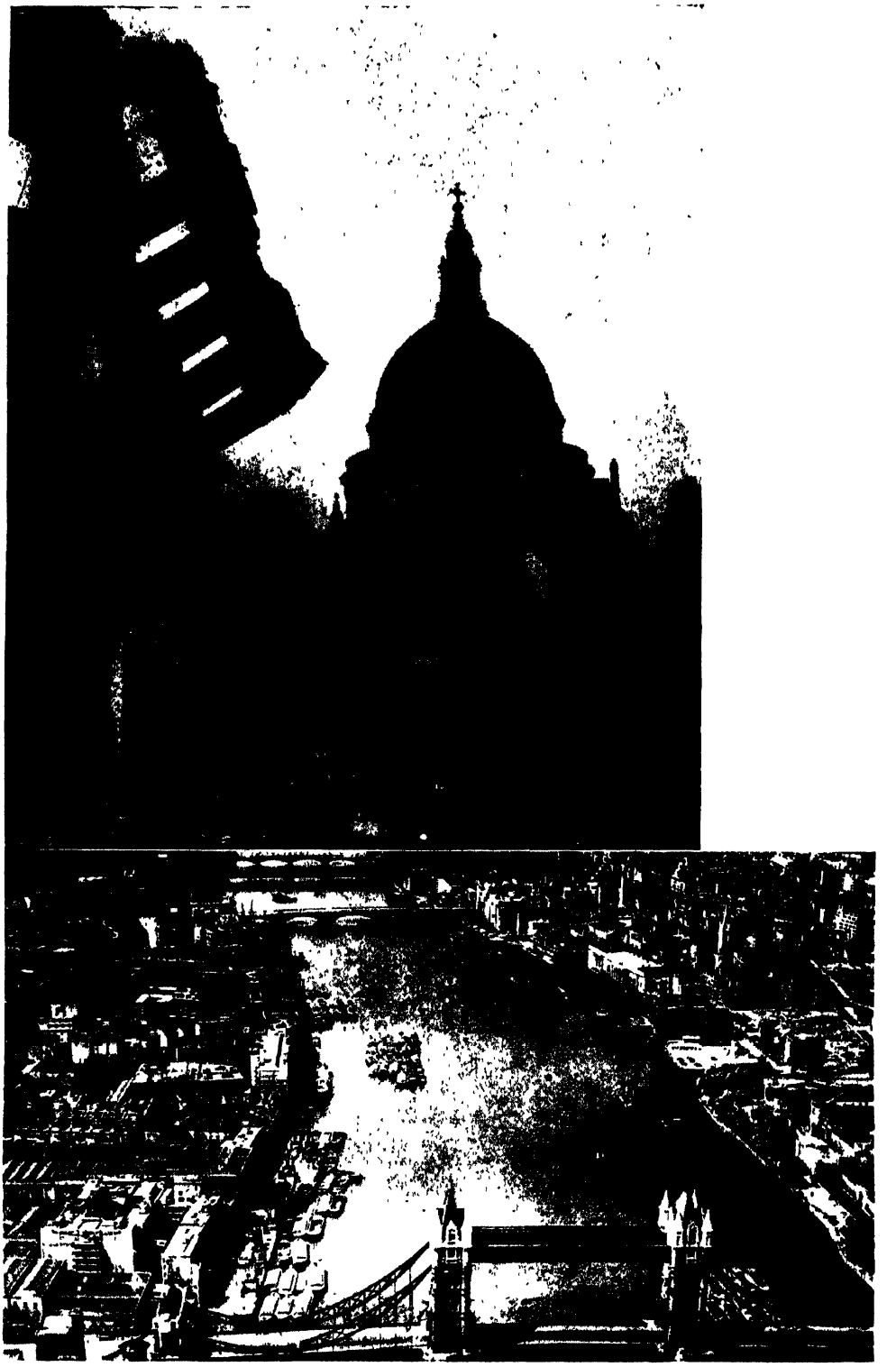
The Division continued its reporting and certification activities related to land-grant colleges and



RKO Pathé

GERMANY EMERGES FROM WORLD WAR II

Above: A worker from one of Berlin's political groups hangs his party's poster.
Below: Former German soldiers eating on a bread line in a railway station.

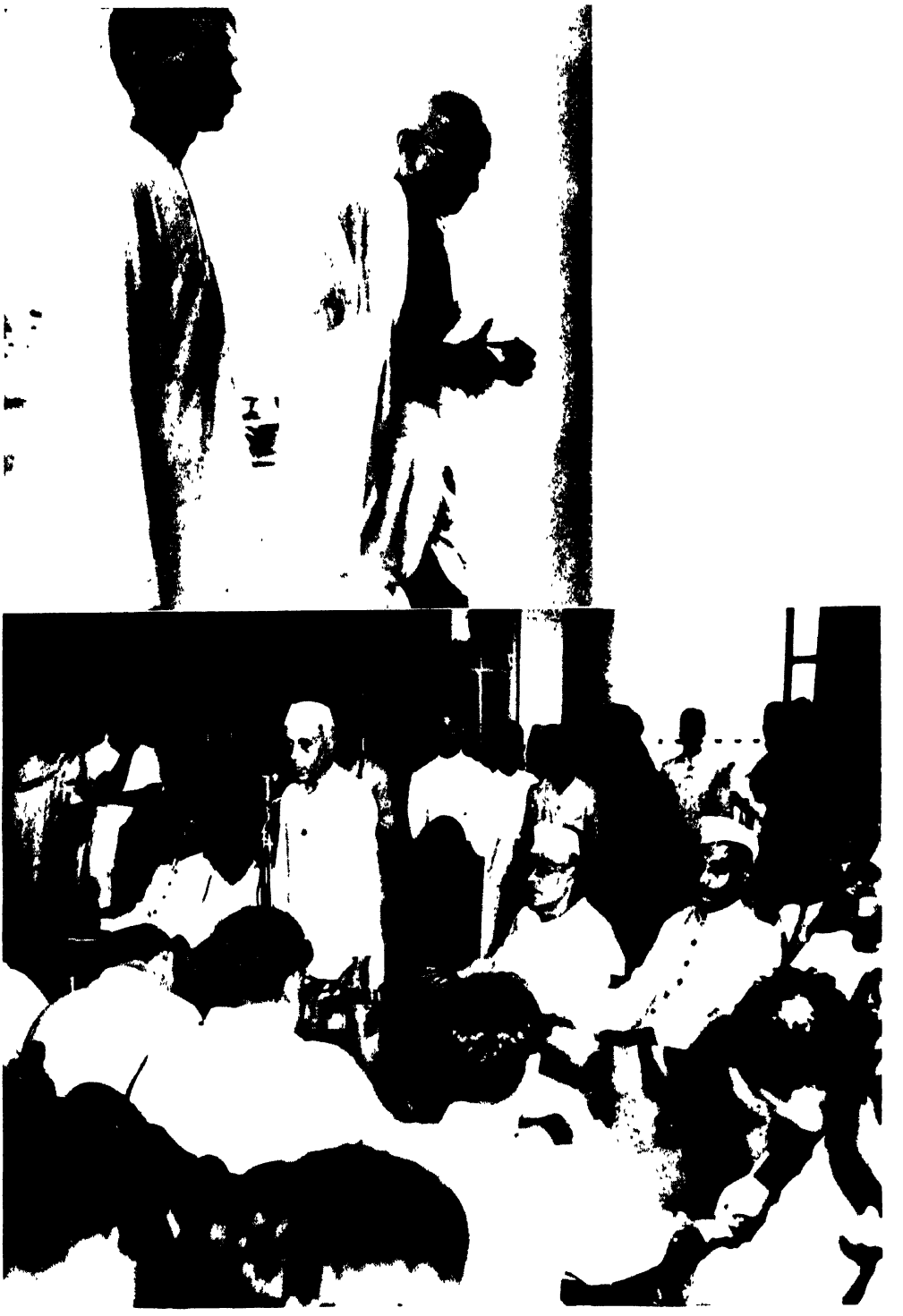


GREAT BRITAIN CLEARS THE WAR DEBRIS

Above: Dangerous London structures are demolished in the shadow of St. Paul's Cathedral. *Below:* A view of London looking west along the river Thames. During the war this river area was the target of thousands of tons of enemy bombs and rockets. (*Photos by British Information Services*)

RETURN TO GREECE

Above: UNRRA planes carry Greeks who were former slave laborers in Germany to Athens (*Press Association, Inc*).
Below: King George, who agreed to return to the Greek throne after a pro-monarchist referendum (*European*).



PERSONALITIES IN INDIA'S INDEPENDENCE MOVEMENT

Above: Mahatma Gandhi, accompanied by Ghose, his messenger, leaves a conference in New Delhi, India. *Below:* Pandit Jawaharlal Nehru, member of the Viceroy's Executive Council, addresses his first press conference at the Council House, New Delhi, as the other Executive Council members listen. (*Photos by European*)

universities. During the year 1944–45, the latest year for which statistics are available, these 69 institutions enrolled 154,425 civilians and 38,890 military students in residence, a total of 193,315. The amount received by the land-grant colleges and universities for the year 1944–45, in accordance with the Second Morril Act, the Nelson Amendment, and the Bankhead-Jones Act (Title II, Section 22) was $5,000,030.

The Engineering, Science, and Management War Training Program was liquidated during the year. A staff member prepared a bulletin, "ESMWT —A Final Report," which is being published by the Office of Education.

Central Services. The newly reorganized Division of Central Services consists of the following units: Research and Statistical Service, Information and Publications, U.S. Office of Education Library, and Administrative and Management Services.

Research and Statistical Service, which includes the functions of analyzing and reporting basic data, supplements the staff of the various Divisions with technical assistance in special problems of research. During the past year the Service set up and conducted the research and statistical aspects of planning and reporting for the Surplus Property Utilization Program, and, at the request of the Veterans' Administration, developed a plan for establishing State centers for collecting and disseminating information on educational opportunities for veterans.

Staff members also served on interagency committees involving various other government agencies; prepared articles for professional journals; provided technical advisory service to a congressional committee and others studying problems of grants-in-aid to education; and assisted States, upon request, with research and survey problems.

In order to produce its materials with maximum efficiency, the Service introduced new methods of scientific sampling and experimented with graphic presentations for the use of nontechnical readers.

The Information and Publications Section performs the customary services of publishing the professional findings of Office specialists in official bulletins and of translating such findings into suitable form for dissemination through all media of communication, especially newspapers, magazines, and radio. In addition, the Section provides professional leadership to the field of educational journalism.

Following reorganization within the past year, the Section staff convened a national advisory group of experts in educational public relations to discuss and make recommendations looking toward a long-range public relations program for the Office. Professional problems were also discussed at the national conference of the American College Public Relations Association and the workshop of the Educational Press Association.

At the request of the Educational Director, Public Information Division of the United Nations, the Section specialists arranged a conference of key editors of educational publications, held in the office of the Secretary-General of the United Nations, to develop a program for presenting factual information about the United Nations to students and teachers in schools and colleges throughout the United States.

During the past year the Editorial Unit of the Section handled a total of approximately 1,000 different items, including 192 separate printing jobs. A total of almost 4,000 separate printed pages were edited, including 30 bulletins, 10 issues of *School Life*, and 18 issues of *Higher Education*. In addition, Part 4, Educational Associations and Directories, of the *Educational Directory* was prepared.

The U.S. Office of Education Library continued to serve its usual clientele of Office specialists, research workers, and personnel of other government agencies. During the past year the 8,000 publications added to the library increased its holdings to approximately 325,000 items. Progress on the acquisition of needed foreign educational literature was made during the year, particularly through the services of the State Department.

International Educational Relations. The Division of International Educational Relations has as its objective the development of better international understanding and cooperation. During the past year the Division continued to administer the Exchange of Educational Personnel Program under the Buenos Aires Convention for the Promotion of Inter-American Cultural Relations. In addition, the Division again carried on the selection and notification of 96 teachers of Spanish from our schools who attended the Spanish Language Institute of Mexico City.

During the past year the Division cooperated with the State Department in setting up the program for the interchange of teachers between Great Britain and the United States. Under this program, administered by the Division, 74 teachers from the United States changed positions with 74 teachers from Great Britain.

During the year, the preparation of studies of educational systems in Central and South America, under the sponsorship of the Inter-departmental Committee on Scientific and Cultural Cooperation, was continued Final reports were completed for Colombia, Chile, Ecuador, El Salvador, Guatemala, Haiti, Nicaragua, and Peru. Field work was done in Panama and Venezuela. Preparation of a report on Brazil was continued.

Requests from teachers and the lay public for materials relating to countries outside the United States, UNESCO, the United Nations, and international relations generally, continued to be exceptionally heavy during the past year In an effort to meet these demands the loan packets service on Latin-American countries was revised and enlarged At present packets for 20 subject fields have been developed Last year about 3,000 of these packets were sent to teachers free upon request, except for return postage. Similar packets on Far Eastern countries were prepared.

Consultant services developed significantly during the year. Ten members of the Division staff served as speakers and consultants to more than 100 university, college, and professional meetings, institutes, conferences, and workshops in the United States. In addition, various members of the staff served in the following capacities: technical expert, United States delegation to United Nations Education, Scientific, and Cultural Organization, London; United States representative on Education Committee, UNESCO, London; United States delegate, Ninth International Congress on Public Education, Geneva, Switzerland; member of Education Mission to Japan; consultant to War Department, U. S. Military Government, Germany; consultant to War Department on selection of educational personnel in occupied areas; consultant services to the Korean Educational Mission sent to the United States by the U. S. Military Government in Korea; and services as observer-advisors to the World Conference of the Teaching Profession at Endicott, N Y.

The number of requests for the evaluation of foreign credentials reflected an increasing utilization of our schools and colleges by foreign students.

During the summer of 1946 there were three times as many requests for evaluation service as there were during the preceding period of 1945.

Auxiliary Services. The Service to Libraries has collected and made available such data as "College and University Library Statistics, 1939–40" and "Statistics of Public School Libraries, 1941–42." The latter, distributed in the fall of 1945, was employed by State supervisors of college libraries to help raise standards of service, by school accrediting associations to assist in revision of standards for members, and by publishers to determine potential markets for children's library books.

Bibliographical services included a listing, "500 Books for Children," prepared at the urgent request of elementary school principals, a selected list of significant government publications for use of librarians and teachers and a compilation of books and periodicals for use of the Korean Education Commission in stocking a teacher's library. Consultative and informational services were rendered by specialists, and cooperation was maintained with State and national library associations.

The Educational Uses of Radio Section received during this fiscal year twice the volume of requests for program materials and for services of advice and consultation than were received during the last fiscal year. Indicative of increasing use of radio in education is the fact that 70 new educational-program scripts were placed in circulation through the script exchange and that 50 additional Transcription Exchange programs were made available to educational institutions.

School Administration. The Division of School Administration provides technical leadership in the fields of school organization and administration, school finance, pupil transportation, school legislation, and school housing. During the past year the work of the Division's specialists involved activities of which the following were typical: Analyzing and presenting information on all aspects of school administration; services for and participation in State, regional, and national conferences dealing with school administration; conferences with chief State school officers and visits to State departments of education; preparation of reports for professional publications; and consultative services to lay organizations interested in school administration.

During 1946 the U. S. Commissioner of Education and the director of the Division met frequently with the officers and executive committee of the National Council of Chief State School Officers and acted as consultants on many problems.

The Division's specialist on school finance issued a pamphlet on "State Plans for Financing Pupil Transportation," and a leaflet on "Federal Government Funds for Education."

The Division's specialist on pupil transportation participated in a conference which resulted in new national school bus standards, now rapidly being adopted by most of the States. During the year the Office published a pamphlet, "School Bus Drivers —Current Practices in Selection and Training." The Division performed two special services in order to keep the States informed of the developments in pupil transportation: (1) maintained the practice of sending State supervisors of pupil transportation current information on developments; and (2) initiated a loan packet service for supplying materials related to 18 different problems in pupil transportation.

The Division specialist on school legislation was called on more than in any previous year to give information and guidance to organizations interested in Federal legislation affecting education.

There was a heavy demand for the consultative service of the school plant specialist. State and local school authorities, greatly concerned that many school plants are obsolete and inadequate, looked to the U.S. Office of Education for leadership and guidance in planning building programs. Division specialists directed or participated in many State and regional surveys and school plant conferences. One staff specialist served as chairman of the Standard Committee of the National Council on Schoolhouse Construction for the preparation of a "Guide for Planning School Plants," a bulletin designed to guide educators and architects in the planning of educational plant facilities.

JOHN W. STUDEBAKER.

EGYPT. A kingdom in the northeastern part of Africa. The ruler in 1946 was Farouk I, who succeeded to the throne on Apr. 28, 1936. The total area of the country is approximately 386,198 square miles. Most of this, however, consists of desert, the habitable area in the Nile Valley and nearby oases comprising only some 13,600 square miles.

Characteristics of the People. The estimated population in 1943 was 17,423,000—and is growing rapidly. The population of the three largest cities was: Cairo, 1,312,096; Alexandria, 685,736; Port Said, 124,749. The great mass of the population professes Islam. There are, however, approximately one million Copts and Greek Orthodox, in addition to some 80,000 Protestants, 130,000 Latins and Uniates, and 65,000 Jews. Egypt is the seat of the Coptic Church, to which the Christian population of Ethiopia also adheres (see ETHIOPIA). The great center of Moslem learning is the University of El Azhar in Cairo, to which students come from all over the Islamic world. According to law, education is compulsory for all children from seven to twelve years of age, though this rule is not rigidly enforced. The Government provides more educational opportunities for girls than do most other Moslem countries. There are fifty secondary schools supported by the Government, as well as eighty-one private institutions. Technical education is furnished in over fifty schools. There are also two state universities: the University of Fuad I in Cairo and the University of Farouk I in Alexandria. There is also an American University in Cairo. Arabic is the official language, and is spoken by most Egyptians. French and English are widely understood among the educated classes.

Government. The monarchy is hereditary in the male line. The present constitution, originally promulgated in 1923, was reintroduced in December 1935 after having been abrogated in October 1930. The Parliament consists of a Senate and a Chamber of Deputies. Two-fifths of the members in the former are appointed by the King, the rest being elected for ten-year terms. The 264 deputies are elective. Universal male suffrage prevails. The Council of Ministers is appointed by the King but is responsible to Parliament—a somewhat anomalous constitutional situation that has given rise to complications.

Egypt proper is divided into five governorships and fourteen provinces. In addition, there are the extensive outlying desert areas, inhabited largely by nomads. Certain matters involving personal status are still subject to the jurisdiction of religious courts. Other cases involving Egyptians are decided before the national courts. By the Convention of Montreux of Oct. 15, 1937, the system of Mixed Courts was scheduled to disappear in October 1949. After that date foreigners in Egypt will be

was persuaded to try again and by October 3 he was heading the ministry once more. He proposed that negotiations be transferred to London, where he arrived on October 17. After several candid conversations with Mr. Bevin, he returned to Egypt on the 22nd. Upon his return he made certain statements concerning those conversations which were challenged in London. On the 28th Mr. Attlee told the Commons that Britain had made no new commitments, particularly in regard to the Sudan. This apparent misunderstanding made Sidky's position difficult among his colleagues. On November 1 he told them that Britain had agreed to Egyptian sovereignty over the Sudan but that the status quo there would continue until the Sudanese could choose their own form of government. Britain had also promised, he reported, to withdraw completely from Egypt within three years. On Nov. 10 he defended these terms as fulfilling all of Egypt's aspirations, and in an interview on the following day he pointed out that the British were already building bases in Palestine, Cyprus, and Kenya to accommodate forces being evacuated from Egypt.

In the Speech from the Throne, opening Parliament on November 14, Farouk declared that the British had agreed to evacuate Cairo, Alexandria, and the Delta within five months. As for the questions of the Sudan and the military alliance, he expressed hope that here too success might also crown the negotiations. The British, in preparation for their imminent withdrawal from the cities of Lower Egypt, were building temporary cantonments and headquarters in the desert near the Great Bitter Lake in the canal zone. By November 27 the Royal Navy had evacuated Alexandria, for many years its principal base in the eastern Mediterranean.

Though some of the Egyptian treaty delegates opposed certain points in the draft, the Deputies gave Sidky's government a vote of confidence of 159 to 0 (over sixty abstentions) on November 26. But through ill health, he was obliged to resign on December 8, still maintaining that he had not agreed in the "Sudan protocol" to let that country enjoy the right of secession (see ANGLO-EGYPTIAN SUDAN). Sidky was succeeded by Nokrashy Pasha, who likewise insisted on the "unity of the Nile Valley" but promised to do his best to come to terms with Britain. Conversations were resumed at the end of the year, but with no immediate hope of success.

Relations with Other Countries. On June 15 it was announced that Egypt had agreed to buy from the United States the remainder of the vast supply of surplus military goods in the country for around $10,000,000. John H. Payne Field, one of the largest air fields in the Middle East, was to be presented to Egypt in return for the latter's agreement to an air pact with the United States. Cairo consented to designate Payne Field as an international airport and to let the Americans operate it until December 15 in order to train Egyptian personnel. There was also an exchange of commercial aviation privileges, by which the American T.W.A. firm was allowed to operate planes into Cairo.

Premier Sidky revealed on July 25 that the Arabian-American Oil Co. had agreed to extend its proposed pipeline from Saudi Arabia to a terminus in Egypt. The United States and Egypt announced on September 15 that they were raising their diplomatic missions to each other from the rank of legation to that of embassy.

Ex-King Victor Emmanuel III of Italy and his wife arrived in Alexandria on January 12 to take up their exile as guests of King Farouk. On September 29 ex-King Simeon, youthful grandson of Victor Emmanuel, also reached his Egyptian exile, accompanied by his mother. It was learned in Paris on September 11 that Italy would pay Egypt reparations to a value of £E6,500,000.

Egypt served during the year as an elected member of the United Nations Security Council. Its delegate, Hafez Afifi Pasha, functioned as President of this body for the month beginning April 17.

Egypt also continued to take a leading part in the Arab League, whose new headquarters were opened in Cairo on January 16 (see PAN ARAB AFFAIRS). The visit of King Ibn Saud during the same month helped materially to strengthen the bonds of Arab brotherhood (see ARABIA). In June the Grand Mufti of Jerusalem escaped from France and soon thereafter turned up in Egypt. He asked asylum of King Farouk, which was granted to him on the reported understanding that he eschew political activities embarrassing to Egypt during the delicate negotiations with Britain. However, it was not long before the Grand Mufti was intriguing over Palestine and Pan Arab affairs from his villa in Alexandria (see PALESTINE; PAN ARAB AFFAIRS).

Domestic Affairs. The country's internal politics were closely connected with the course of Anglo-Egyptian relations. The Wafdists, out of power, sought to make political capital out of the natural anti-British sentiment of the masses. The government was thus constantly being harassed by demonstrations and riots, stirred up by the Nationalists, and these events in turn reflected unfavorably on the negotiations with Britain.

On January 5 Sir Amin Osman, former finance minister and friend of Britain, was assassinated, and his funeral on the following day became the occasion of a student demonstration against the Nokrashy government. By the end of the month the continuance of the latter in office was undermined by the threat of the three Independent Wafdist, or Kotla, members to resign, over the question of whether or not Egypt should take her dispute with Britain before the Security Council. The King prevailed upon the three dissidents to withdraw their resignations. But the internal situation deteriorated, with student riots against Britain breaking out in Cairo on February 9 and spreading elsewhere, with a loss of at least nine lives. The three ministers resigned on the 13th, followed by Nokrashy himself on the 15th. He was succeeded by Ismail Sidky Pasha, who had been Prime Minister early in the '30's. By the 17th he had a cabinet composed of five Constitutional Liberals and seven independents, administrators rather than politicians. It thus had the direct support of only one party in the Chamber, with 90 out of 250 seats; yet it was accorded a vote of confidence on the 18th. The next day Sidky told the Chamber that he desired complete independence and unity for the Nile Valley and would wage war on ignorance, disease, and poverty. The King was also known to be much interested in improving the economic and social conditions of his subjects. As a result of the war, prices were inflated; yet growing numbers were jobless—as many as 325,000 by early summer. This was partly caused by wholesale discharge of employees by the British as they cut down their military, aerial, and naval establishments in the country. In any event, the British served as convenient scapegoats against whom the unrest of the populace and the students could be turned.

During riots in Cairo on February 21 mobs attacked the R.A.F. barracks, destroyed parts of the Anglican Cathedral and a Catholic Church, and

managed to bring about the death of at least twenty persons. Sidky forbade further meetings and blamed the disturbances on the aggressive acts of British soldiers. The British government denied this and demanded reparations. March 4 was observed as a day of mourning for the victims of February 21, with further riots in Alexandria, where seventeen were killed and some 300 injured. Though Sidky showed real determination to restore order, there were other outbreaks, such as the fatal bombing of a theater in Cairo on March 10.

Violence continued spasmodically during the spring and early summer. A new note was introduced on July 8 when the government rounded up seventy alleged Communists and Left-wing Wafdists. On the following day it was revealed that the Cabinet had prepared new provisions for the Civil Code in order to deal with propagandists urging the overthrow of the established regime and with those who got funds from abroad. These articles were promulgated on the 10th. The very same day police seized around a thousand persons, mostly young intellectuals but including a number of Wafd and other political leaders, several foreigners, and even a few capitalists. Fifty women were among this motley crew, who were supposedly charged with seditious, even Communist, activities. The organ of the Wafd, *Al Wafd Al Misri*, was suspended and its editor arrested. In this way the authorities forestalled a general strike, called for the 11th on the anniversary of the British bombardment of Alexandria in 1882. On the 13th the Cabinet dissolved eleven educational, cultural, scientific, social, and labor organizations, including all the branches throughout Egypt of the Labor Union Congress.

The sequel to this "Red scare" was an anticlimax, for most of the arrested persons were released without formal charges filed against them, while several of the closed associations were again operating by the fall.

The weakness of the Sidky Cabinet eventually led to its reform on September 12 by the addition of Saadist members. As before, there were no Wafdists, and Makram's Kotla Party had withdrawn. Nevertheless the government represented a majority in Parliament. Another crisis was precipitated later in the same month when Anglo-Egyptian treaty negotiations bogged down once more. Sidky resigned on the 29th, but his mandate was renewed on October 3.

November 13 was National Struggle Day and was marked by riots and demands by the Wafd for a revolt against continued British occupation and for the resignation of Sidky. New outbreaks began on the 23rd and continued for several days. Sidky closed the Fuad University in Cairo indefinitely, banned public meetings and promulgated other repressive measures—aimed primarily at the Wafd, which he accused of plotting insurrection. The replacement of Sidky by Nokrashy on December 8 and 9 (see above) meant no loosening of the press and other gags. The new Prime Minister sternly warned the students against engaging in political activities. He received a vote of confidence—155 to 21—on December 16.

Social and Economic Reform. The need for immediate and thoroughgoing reform in the archaic economic and social system of Egypt was universally admitted. The government, spurred by the King, was in fact already moving in this direction, though its primary attention was of necessity fixed on the attainment of complete independence.

In April it was learned that Paul van Zeeland, former Prime Minister of Belgium, had been called to Egypt to act as consultant on economic problems. On August 15 the government announced plans for selling state lands in small plots and for encouraging, through taxation and other means, the splitting up of large private estates into small parcels. Various other projects, such as the electrification of the Aswan Dam, were also afoot. Symptomatic of the trend was the fact that nearly three-quarters of the Speech from the Throne on November 14 was devoted to social reform.

The earliest flood since 1869 descended upon Egypt from the basin of the Blue Nile and by August 15 the water level at Cairo was the highest on record. The government found it necessary to take drastic steps in order to prevent widespread damage to land and crops in the Delta.

The Country and Its Economy. The only part of the extensive area of Egypt that has any real economic value is the Nile Valley. Above Cairo this is quite narrow, but in Lower Egypt it widens out into the fertile Delta. Thanks to the water and the fertilizing qualities of the Nile River this relatively small area has been able to support a dense population for several millenia. It is possible to raise two, or even three, crops a year. During the British occupation the economy of the country was directed into the production of cash crops, such as cotton, rather than foodstuffs. In Egypt the unit of area is the *feddân*, which equals 1.038 acres. In 1944 852,949 feddâns produced 4,640,262 qantârs of cotton (a *qantâr* is the equivalent of a hundredweight). In 1942–43, 1,917,422 feddâns were put into wheat, 418,947 into barley, 381,010 into beans, and 19,114 into onions. In 1943 there were 1,950,957 feddâns of corn, 729,106 feddâns of millet, and 642,121 feddâns of rice. In 1943 the country possessed 30,896 horses, 826,796 donkeys, 1,202,284 cows, 1,100,124 buffaloes, 1,423,772 sheep, 759,794 goats and 174,054 camels. Egypt's oil production in 1943 was 1,284,966 metric tons, and in 1944 some 1,800,000 tons. Explorations have been going on in the hope of discovering larger fields, but thus far with only modest success.

In 1945 Egypt's imports were valued at £E59,679,000 and her exports at £E41,630,000. Her trade with Great Britain, as regards both exports and imports, was greater than that with any other country.

The Egyptian railway system comprises some 2,750 miles of main line in addition to nearly 1,000 miles of light railways. Egypt has been united by direct rail communications with Syria and Turkey since the British Army completed building the 175-mile line between Tripoli (Lebanon) and Haifa during the war. The rivers and canals of Egypt are extensively used for transport.

The country enjoys a strategic location along some of the world's principal air routes, which connect the three continents of the Eastern Hemisphere. The Suez Canal passes through Egyptian territory but is subject to a special regime (see SUEZ CANAL) and is owned by a French corporation. According to the terms of the concession under which the Canal was constructed, it is to revert to the Egyptian Government in 1968.

ROBERT GALE WOOLBERT.

EIRE. (Ireland). A sovereign, independent state, affiliated for certain purposes with the British Commonwealth of Nations. Eire includes the twenty-six counties of Southern Ireland formerly designated the Irish Free State. The name was officially changed to "Ireland" in English and to "Eire" in Gaelic. Area, 26,601 square miles. Population (1946 census): 2,953,452. Capital: Dublin.

The People. Almost all (94 percent) of the people belong to the Roman Catholic Church, with the remainder divided among Episcopal, Presbyterian, Methodist and other churches. Primary education is directed by the State, and there is almost no illiteracy. The Irish language is taught in all national schools. There are two universities, with an enrollment in 1945–46 of 6,310 students.

Government. Under the Constitution proclaimed December 29, 1937, there is a President elected by popular vote for 7 years. The Oireachtas (Parliament) includes two houses: the Dáil Eireann or House of Representatives of 138 members and the Seanad Eireann or Senate of 60 members (43 elected on a vocational basis, 6 elected directly to represent the universities, and 11 nominated by the Prime Minister. Executive power is exercised by the Government, or Cabinet, which is responsible to the Dáil. The President, Sean T. O'Kelly, was elected in 1945 to succeed Douglas Hyde, the first President of Eire, who held office from 1938 to 1945.

The Prime Minister, Eamon de Valera, who also serves as Minister for External Affairs, is the leader of Fianna Fáil (the Government Party), to which position he was unanimously reelected on October 8, 1946. At the time of the last general election (May, 1944), Fianna Fáil had 76 seats in the Dáil; Fine Gael (United Ireland Party), 30; Farmers, 12; Labor, 8; National Labor, 4; and Independents, 8, out of the total 138 seats.

Events, 1946. The postwar reconversion period was not an easy one for Eire, although the country's relatively plentiful supplies attracted thousands of English tourists for whom home conditions were much more austere. Coal from Britain had become more expensive and scarcer, so steps were taken to develop Eire's native peat. The cost of living in Eire rose more swiftly and steeply than Britain's, while wages lagged. Rains during the harvest season were destructive and at the end of the year it appeared that bread rationing was in sight.

The country was plagued by strikes for most of the year. The rapidly rising cost of living, in view of the low wage and salary levels, was the cause in most instances. The best-known strike was that of the teachers in the Dublin elementary schools, who were away from their posts for many months, but serious dislocations occurred in industry as well. Farm laborers struck for higher wages in March, sugar workers at the end of the year; and in nearly every major industry strikes had occurred or were threatened for 1947. Prime Minister de Valera warned his party at a Dublin meeting in December that the setting of one group against another had already produced a serious situation for the Irish community.

Another domestic difficulty was the persistence of the activities of the underground extremist movement known as the Irish Republican Army (IRA). In May one of the IRA men who had been kept in internment camps during and after the war died as a result of a hunger strike. The Prime Minister then made a public statement to the effect that the Government could not be coerced by hunger strikes or other means to release men who usually then engaged in further plots against the state.

International Relations. In his speech in recognition of his reelection to the leadership of Fianna Fáil in October, Prime Minister de Valera appeared to reverse an earlier position when he proclaimed his allegiance to the British Commonwealth, saying that the association of the Irish Republic with the Commonwealth had practical values. The Prime Minister was obviously replying to criticisms of the functions of the President, Sean O'Kelly. He reminded his hearers that the presidency was defined by law and that certain symbols of Commonwealth recognition provided by Eire law had been accepted by the Irish people.

At the final meeting of the interim council of the Provisional International Civil Aviation Organization (PICAO) in Montreal in June, Dublin was chosen unanimously as permanent headquarters for the North Atlantic regional office. A PICAO conference on North Atlantic air routes had met in Dublin in March, and the region's strategic position was apparent. In April announcement was made of the formation of an Anglo-Irish air transport company to provide service between Eire and the United Kingdom, and Eire and the Continent. The new company was to be owned 60 percent by Aer Rianta, an Irish company, and 40 percent by British Overseas Airways Corporation.

On July 25 the Dáil unanimously approved Prime Minister de Valera's motion that the Eire Government be authorized to become a member of the United Nations. This decision was communicated to the acting Secretary-General of the United Nations by cable immediately. Russia expressed opposition in the Security Council, and admission was not achieved in 1946.

Agriculture and Industry. Agriculture is very important in the Irish economy and a fruitful source of exports, especially to Great Britain. Wheat, oats, barley, rye and potatoes are the leading crops. Stock raising, manufacturing and fishing are also important.

Industrial production is varied, but brewing (£11,837,000 in 1944), tobacco (£11,736,064) and grain milling lead the list. In general the industries with the largest value of output are concerned with the processing of food, although clothing and woolen and worsted manufacture are also large.

Foreign Trade. Eire's exports in 1945 reached £75,092,000, with more than half of the income furnished by invisible items such as income from investments abroad (£15,000,000), emigrants' remittances (£9,603,000) and pensions paid by the British Government (£4,244,000). Imports, which consisted of a higher proportion of merchandise, were £51,137,000, leaving a balance in Eire's favor of £23,955,000. Great Britain ordinarily takes about four-fifths of Eire's commodity exports but furnishes usually only a little more than one-half of Eire's commodity imports.

Eire has become Britain's creditor to a considerable amount, and since the Anglo-American Loan Agreement requires an attempt to scale down sterling debts there has been some uneasiness in both countries; in Eire, because the political relations with Britain have not been such that the suggestion would be well received, and in Britain because it is understood that few things would harm the gradually improving relations more than a suggestion of repudiating part of Eire's sterling balances.

ALZADA COMSTOCK.

ELECTIONS. The Republican Party won control of Congress on November 5 in an overturn of landslide proportions. By gaining 56 seats in the House and 12 in the Senate the GOP took over for the first time in fourteen years. The Republicans received approximately 55 percent of the total votes cast. A tally of the results is shown in the accompanying table on page 199.

POLITICAL COMPOSITION OF OLD AND NEW CONGRESS*

State	Old Senate	New Senate	Gain	Old House	New House	Gain
Alabama	2D	2D	0	9D	9D	0
Arizona	2D	2D	0	2D	2D	0
Arkansas	2D	2D	0	7D	7D	0
California	1D, 1R	1D, 1R	0	16D, 7R	9D, 14R	7R
Colorado	1D, 1R	1D, 1R	0	4R	1D, 3R	1D
Connecticut	1D, 1R	1D, 1R	0	4D, 2R	6R	4R
Delaware	1D, 1R	2R	1R	1D	1R	1R
Florida	2D	2D	0	6D	6D	0
Georgia	2D	2D	0	10D	10D	0
Idaho	2D	1D, 1R	1R	1D, 1R	2R	1R
Illinois	1D, 1R	1D, 1R	0	11D, 15R	6D, 20R	5R
Indiana	2R	2R	0	2D, 9R	2D, 9R	0
Iowa	2R	2R	0	8R	8R	0
Kansas	2R	2R	0	6R	6R	0
Kentucky	1D, 1R	1D, 1R	0	8D, 1R	6D, 3R	2R
Louisiana	2D	2D	0	8D	8D	0
Maine	2R	2R	0	3R	3R	0
Maryland	2D	2D	0	5D, 1R	4D, 2R	1R
Massachusetts	1D, 1R	2R	1R	4D, 10R	5D, 9R	1D
Michigan	2R	2R	0	6D, 11R	3D, 14R	3R
Minnesota	2R	2R	0	7R, 2D	8R, 1D	1R
Mississippi	2D	2D	0	7D	7D	0
Missouri	1D, 1R	2R	1R	7D, 6R	4D, 9R	3R
Montana	2D	1D, 1R	1R	1D, 1R	1D, 1R	0
Nebraska	2R	2R	0	4R	4R	0
Nevada	2D	1D, 1R	1R	1D	1R	1R
New Hampshire	2R	2R	0	2R	2R	0
New Jersey	2R	2R	0	2D, 12R	2D, 12R	0
New Mexico	2D	2D	0	2D	2D	0
New York	2D	1D, 1R	1R	22D, 22R, 1ALP	16D, 28R, 1ALP	6R
North Carolina	2D	2D	0	12D	12D	0
North Dakota	2R	2R	0	2R	2R	0
Ohio	1D, 1R	2R	1R	6D, 17R	4D, 19R	2R
Oklahoma	1D, 1R	1D, 1R	0	6D, 2R	6D, 2R	0
Oregon	2R	2R	0	4R	4R	0
Pennsylvania	2D	1D, 1R	1R	14D, 19R	5D, 28R	9R
Rhode Island	2D	2D	0	2D	2D	0
South Carolina	2D	2D	0	6D	6D	0
South Dakota	2R	2R	0	2R	2R	0
Tennessee	2D	2D	0	8D, 2R	8D, 2R	0
Texas	2D	2D	0	21D	21D	0
Utah	2D	1D, 1R	1R	2D	1R, 1D	1R
Vermont	2R	2R	0	1R	1R	0
Virginia	2D	2D	0	9D	9D	0
Washington	2D	1D, 1R	1R	4D, 2R	1D, 5R	3R
West Virginia	1D, 1R	1D, 1R	0	5D, 1R	2D, 4R	3R
Wisconsin	1R, 1P	2R	1R	2D, 7R, 1P	10R	3R
Wyoming	1D, 1R	1D, 1R	0	1R	1R	0
Totals	56D, 38R, 1P	45D, 51R	12R	241D, 192R, 1P, 1ALP	188D, 246R, 1ALP	56R

* D = Democrat, R = Republican, P = Progressive, ALP = American Labor Party.

In addition to sweeping Congress in a manner reminiscent of the Democratic triumph of 1932, the Republicans picked up three Governorships (Idaho, Massachusetts, and Ohio) and lost one (Colorado) for a net gain of two Governorships There are now twenty-five Republican Governors and twenty-three Democratic Governors Significantly the Republicans won 20 of the 34 gubernatorial contests. A tabulation of results shows Republican incumbents reelected in California, Iowa, Maine, New Hampshire, New York, North Dakota, Oregon, Wisconsin, and new Republican Governors in Connecticut, Idaho, Kansas, Massachusetts, Michigan, Minnesota, Nebraska, New Jersey, Ohio, Pennsylvania, South Dakota, and Vermont. Democratic incumbents were reelected in Arizona, Arkansas, Nevada, Rhode Island, Tennessee and Wyoming. New Democratic Governors were elected in Alabama, Colorado, Georgia, Maryland, New Mexico, Oklahoma, South Carolina, and Texas.

Over 34 million votes were cast which was a record number for an off-year election. This total is considerably lower than the 45 million that voted in the Presidential election of 1944, but considerably more than voted in 1942's off-year election when 28 million turned out. The Republicans led with approximately 19 million votes to 15 million. For some unknown reason many of the women Congressional candidates were defeated and the count now stands seven women of which four are Republicans and three, Democrats. Eleven women served in the 79th Congress.

Even more significant was the way the Republicans swept the State Legislatures. Again, comparisons could be drawn with the Democratic rout of Republicans in the 1932, 1934, and 1936 elections. This year the Democrats were almost wiped out in Iowa, Indiana, Michigan, and Oregon, and the Republicans also won in such Democratic strongholds as Montana, Washington, and Utah.

When the ballots were counted the Republicans controlled (except for Rhode Island) the State Legislatures in the New England States, throughout the Northwest, as well as in the Midwest. The Solid South and the Legislatures in such border States as Maryland, Kentucky, Tennessee, and Oklahoma remained in the Democratic column, but both houses in Missouri are now Republican as well as both houses in Idaho and Montana. The House in Washington is Republican and the Senate, which is tied 23–23, was organized Republican by the Democratic Lieutenant Governor who, holding the balance of power, felt that since the State went overwhelmingly Republican, the Senate should be organized Republican despite a few Democratic hold-overs. Other Western States such as California, Colorado, Oregon, and Wyoming continued Republican. The Democrats retained their hold in Arizona and New Mexico. In Nevada the Senate is Republican and the Assembly is split with two Independents holding the balance of power. In Utah the Republicans hold the House and lack one vote of controlling the Senate.

As this is written, it appears that in 28 States both houses of the Legislatures will be Republican and 18 States will have both houses Democratic.

The Reasons. Political analysts attribute overwhelming defeat of the Democrats to a variety of causes among them being: widespread desire for a change; general dissatisfaction with the Truman administration; high prices, scarcities, and the inconveniences of controls; strikes and prolabor bias of administration; radicalism, particularly the issue of Communism which seems to explain the disaffection of large blocs of urban Catholic voters; the return of many Negro voters to the Republican fold; and finally the many minor liabilities accumulated by the Democratic party during fourteen years of rule.

Coupled with these factors was the complete collapse of the Democratic political organization, a diverse and multi-engined machine which in former years had been synchronized by the wizardry of its former pilot President Franklin D. Roosevelt. It will probably be many years before the numerous bits and pieces of this amazing machine can be put together again. Even the great city machines in Chicago, Boston, Kansas City, St. Louis, Cleveland, and Los Angeles failed to come up to Democratic expectations.

Labor, particularly the political influence of the Congress of Industrial Organizations and the Political Action Committee, appeared to be discredited, and it was obvious that large segments of labor (especially members of the American Federation of Labor) voted Republican. Less than one-third of more than 300 Congressional candidates backed by CIO-PAC were elected. Labor publications viewed the election as a "disaster" and the *CIO News* dubbed Election Day in 1946 "Black Tuesday."

State Proposals. Over one hundred proposals for amendment of state constitutions and numerous measures for "direct legislation" of the initiative and referendum type were before the voters in November. Proposed amendments relating to veterans and to labor were most numerous. Measures favoring payment of a soldier's bonus were approved in Illinois, Michigan, and Rhode Island; however, at their September election Maine voters rejected a referendum on a proposed bond issue for such a purpose. Illinois voters approved a $385 million bond issue, funds from which would pay each veteran $10 per month for each month of domestic service and $15 for each month of overseas service. A lump sum payment of $900 would be made to families of veterans killed in service. Michigan also authorized a $10–$15 per month payment type of bonus while Rhode Island provided for payment of a flat $200 bonus to every serviceman.

New Jersey approved a special $35 million bond issue for veterans' housing and California endorsed a $100 million bond issue to help veterans buy homes and farms. Texas provided a $25 million veterans' revolving fund for the purchase of state lands for resale to veterans under favorable conditions. A proposal to make loans to veterans going into business was rejected in California. Louisiana increased its homestead exemption for veterans from $2,000 to $5,000 applicable to the years 1947–1952, and in addition Arizona broadened its tax exemptions to veterans.

Low-cost housing for veterans and others was encouraged in New York by amending the constitution to permit an increase in housing subsidies from $6,250,000 to $9,000,000 annually. These funds would be used to keep rents down for low-income families. The New York Legislature had previously authorized $80 million in housing loans.

Voters in Arizona, Nebraska, and South Dakota approved measures outlawing labor's closed shop. Similar action had previously been taken in Alabama, Arkansas, and Florida. Colorado, Kansas, Louisiana, Oregon, and Wisconsin have somewhat less stringent laws in this category. The Nebraska amendment, which is similar to the others, "prohibits denial of employment to any person because of membership or non-membership in or resignation or expulsion from a labor organization." The amendments have not been enforced pending legislative action in Arkansas and the outcome of Florida's Supreme Court case.

Another measure bitterly contested by labor organizations was the so-called Barnes proposal approved in Massachusetts. It calls for a financial accounting by unions and requires them to make public financial reports. Applying to 2,000 unions, the law will now publicize names and salaries of labor officers and dues, fees, assessments, and other expenditures of unions.

Other propositions which were approved included such miscellaneous proposals as these: Alabama adopted the controversial "Boswell Amendment," requiring voters to read, understand, and explain any specified section of the Federal Constitution to the satisfaction of county registrars. Obvious purpose of the amendment, according to its advocates, was to prevent mass registration of negro voters. Vote on the approval of the amendment was close. At the same time California defeated a Fair Employment Practices Commission proposition. North Carolina approved the standard "Equal Rights for Women" type of amendment and Massachusetts authorized women to serve on juries. California, Michigan, Oregon, Oklahoma, and Utah adopted amendments providing additional financial support for their school systems, but amendments for additional school aid in Nebraska and for the reorganization of the West Virginia educational system were rejected. Wisconsin turned down an amendment permitting the transportation of parochial school children in public school buses.

Oregon proposals establishing a "little Townsend" old age pension system and authorizing the levying of additional taxes for armory construction were defeated for economy reasons. Utah joined Washington in authorizing taxation of federal property under certain circumstances.

A controversial measure for the establishment of a new state forestry board was rejected in Washington while West Virginia was authorizing tax concessions to forest land owners to get them to participate in a state forest conservation program.

Michigan approved an amendment permitting the state to build airports after previously appropriating $1 million to match Federal aid funds for such construction. Also approved in Michigan was an amendment directing the state to return up to one-third of its sales tax revenues to cities and schools. This is expected to amount to $60 million annually. Arizona also approved a somewhat similar proposal extending aid to its cities.

Salaries of state legislators were increased in Idaho from $5 to $10 per day, but other proposals increasing legislators' salaries or allowances were turned down in Missouri, North Carolina, and North Dakota. The North Carolina amendment lacked less than 1,000 votes of passage out of some 300,000 votes cast. Utah raised the salaries of its judges by modest amounts and a pension plan for state and county employees was authorized in Texas.

The standard anti-diversion of state highway funds amendment which has been approved by nineteen states was adopted in Texas.

Numerous amendments of a minor nature having

to do with the sale of liquor; the regulation of parimutuels, dog racing, and the outlawing of slot machines were up for consideration in several of the states including California, Idaho, Illinois, and Massachusetts.

Oregon adopted a variety of proposals including those permitting Chinese to own real estate; restricting commercial fishing in coastal waters; allowing legislative bills to be read by title, and fixing the order of succession in case of death of the governor.

In the interest of electoral reform Colorado amended its constitution to provide for secret ballots and Illinois authorized the use of voting machines in Cook County.

Although New Hampshire voters approved calling a convention in 1947 to amend their state constitution, Illinois voters again rejected the so-called "Gateway Amendment" which would have made it easier to amend Illinois' constitution.

HUBERT R. GALLAGHER.

ELECTRICAL INDUSTRIES. The index of production reflecting activity in the electrical manufacturing industries continued through 1946 with a further strong downward trend. The outlook at the beginning of the year had been for a leveling off of the production curve at about half that level for 1946 following its decline from the 1944 wartime peak of about 9 billion dollars. Shortages of critical material and labor disturbances were the two factors which brought down the 1946 record. Shortages included such critical materials as copper, steel, lead, metal castings, nickel, plastics, and other materials required in the manufacture of electric equipment.

Paradoxically, in spite of unsettled industry conditions and the difficulties of obtaining raw materials, the production of electric appliances in 1946 reached a level higher than in any of the preceding 10 years. From practically a shutdown in 1944, the production of electric refrigeration equipment climbed to a new 10-year high. This striking postwar recovery in the production of electrical goods for the domestic consumer may be taken as indicating the strong recovery that may be expected of the entire electrical manufacturing industry, once it can get started. The Federal Reserve Board index of general industrial production also showed a downward trend for 1946 which was continuing downward at the year end.

Taking 1940 production figures as a basic reference index of 100, the production of electrical appliances for 1946 was 163 as compared with 40 for 1945 and 10 for 1944. Other comparable figures are: electric refrigerators 101 for 1946, 13 for 1945, and less than 2 for 1944; miscellaneous electrical materials at 157 as compared with 230 and 305; industrial electrical apparatus at 150 compared with 257 and 358; electric power transmission and distribution equipment at 116, compared with 111 and 330; insulated wire and cable at 132, compared with 115 and 139.

Taking the 1940 figures for the over-all production index for the electrical manufacturing industry as a comparative basis of 100, the 1946 index stood at 179 compared with 254 for 1945 and 360 for 1944. For the same years, the Federal Reserve Board general industry index stood respectively at 131, 163, and 189, compared with population indexes of 106, 106, and 104 respectively. The sales of electricity for 1946 stood at 156, as compared with 162 for 1945, and 166 for 1944. These figures reveal the extent to which production in the electrical manufacturing industry still is very substantially higher than the relative production activity of United States industry as a whole. For example, in 1946 comparative production activity in the electrical manufacturing industry was 54 percent above over-all industry production; for 1945, 65 percent; for 1944, 115 percent, the peak; for 1943, 95 percent; for 1941, 55 percent; for 1939, 13 percent; in 1938, the two were the same, which is approximately the normal condition. The disproportionate expansion in the electrical manufacturing industry under the influence of war-preparation and actual wartime demands, reveals conclusively and dramatically the extent to which electrical equipment and materials of all kinds were essential parts not only of manufactured equipment, but also of the factories required to produce that equipment.

A published listing of the 50 largest United States manufacturing companies included the following electrical manufacturers, listed in the order indicated:

Sixth, General Electric Company, with assets of 913 millions;

Tenth, Westinghouse Electric Corporation, 520.7 millions;

Fifteenth, Western Electric Company, 412.8 millions;

Thirty-second, Allis-Chalmers Manufacturing Company, 250.8 millions;

Thirty-eighth, Radio Corporation of America, 232.7 millions.

Excluding the Western Electric Company, for which no figures were given, the other four of these companies listed 536,221 persons as stockholders.

In wartime Germany, too, the electrical industry including the electric power industry, was a vital and major cog in the war machine. German records have revealed, for example, that 40 percent of the 65 billion kw-hr consumed in 1944 by all German industry, was consumed in producing synthetic oil, calcium carbide, iron and steel products, machinery, aluminum, and magnesium—all vital elements in Germany's war program. To prevent German industry in general, and the electrical industry in particular, continuing with its war-making potential, the Technical Industrial Disarmament Committee for the German Electric Power Industry, of the U.S. Foreign Economic Administration, recommended in its 1945 report (which was not released to the public until 1946) the following five-point program:

1. Immediate reduction of Germany's power capacity to a tentative figure of 9 million kw, necessitating dismantling and removing 13 million kw of generating capacity and electric power transmission facilities, and the establishment of an administrative organization, responsible to the Allied Control Council to supervise operation of the remaining electric utility and manufacturing industries.

2. Strict limitation of German export of electric energy as reparations to a temporary period, as continuance of such practice would tend to build up the German power industry and increase German dominance over nearby customer nations.

3. Administrative control of the German power industry for an undetermined period, to prevent expansion of generating and power handling facilities above the requirements of peacetime pursuit.

4. Inclusion in the peace treaty of a clause prohibiting expansion of Germany's electric industry above the level required for her peacetime economy, and that level to be reviewed periodically by an appropriate international enforcement agency.

During the summer of 1946, the U.S. War De-

partment announced a contract with the General Electric Company for atomic energy research and development, including the transfer of responsibility for operation of the 347 million dollar Government-owned atomic plant at Hanford, Wash., from the I. E. du Pont de Nemours Company effective September 1, 1946, the Government retaining ownership of the plant. Competent authorities made public statements to the effect that "it is only a matter of time until industrial power will be obtained from nuclear energy, although the 'how' and 'when' remain to be answered, and involve both engineering and major economic factors." Most seemed agreed, however, that perhaps as little as 5 years' time would see nuclear power plants furnishing energy for ship propulsion, especially naval vessels where the bulk and weight of conventional power-plant equipment and fuel are critically important. Presumably, nuclear sources would furnish the heat energy which would be used for the generation of electric power for ship propulsion, auxiliaries, and services.

Electronic equipment, including some of the wartime radar principles and equipment, are finding an ever-widening field of application in all branches of American industry from aviation and air navigation to the printing industry where it is used, among other things, to actuate controls to assure accurate register.

The wartime development and application of magnetron tubes, for radar and other purposes, has been followed up by the further development of these tubes for industrial use to supply frequencies of the order of 1,000 megacycles. Industrial heating equipment using these tubes was developed for use in the plastics industry and for other applications of dielectric heating. Included in the applications of high-frequency heating are surface hardening, annealing, brazing, and soldering.

Developed and utilized during the war, for the inspection of ordinance and other equipment, the 2-million-volt industrial X-ray equipments were being turned to peacetime purposes. One such unit originally intended for the production inspection of forgings for jet-propulsion equipment now is being used for the production inspection of castings of steel and other high density metals of complicated shape and of thicknesses varying from ¼ inch up to 12 inches. To provide automatic inspection of metal products photoelectrically, production of machines which automatically inspect the quality of conveyorized products passing between an X-ray tube and a fluorescent screen was announced. With such a machine, any variation in the amount of radiation coming from the screen as a result of flaws or foreign matter in the products under inspection causes the operation of a photoelectric cell, which in turn puts into operation a device which ejects the faulty article and puts a squirt of paint on it marking it as defective.

Preparations were announced for the production of Betatrons, in the 50-million-volt class for therapy and the 10-million-volt class for industrial inspection purposes. The year also saw the development and production of several new types of electromedical equipment; one of these was a new germicidal ultra-violet lamp especially designed for the disinfection of air in hospital, and similar institutions. Another unit was an ultra-violet lamp intended for nonprofessional use, by patients under physicians' prescription and supervision. An aid to medical science, which found widespread use during the war as a means of locating quickly and exactly the position of foreign objects in the human body, was made available for civilian use. Known as the Berman Locater, the device operates on the basis of audible signals which increase in pitch as the probe or locating instruments approach the foreign object being sought—suggestive of the wartime mine detector.

In the field of plastics, silicones are rapidly assuming a position of major importance. Silicone plastics are derived from silica, whereas the other widely used plastics are derived from carbon. Silicone plastics lend themselves to production in various forms ranging from silicone "rubber" to compounds of flint-like hardness. Since these plastics can withstand high temperatures that would destroy other plastics, they seem to offer enormous possibilities in the field of electrical insulation. The temperature-resistant qualities of silicones, together with their utter imperviousness to moisture and all liquids except special solvents, led to the wide wartime Navy demand for this material, and the resulting special research expedited its development. Silicone-treated greases and other lubricants have been demonstrated to have enormously long life and to retain their full lubricating qualities in both low- and high-temperature conditions that would destroy the desired qualities of ordinary lubricants.

The 100-million-volt X-ray machines, technically known as induction electron accelerators or "Betatrons," announced in the 1946 YEAR BOOK as being under development, were under construction at the end of 1946, one for the University of Chicago's Institute of Nuclear Studies, to be used for research on fundamental nuclear physics; the other for the Clinton Laboratories at Oak Ridge, Tennessee, operated as a part of the famous Manhattan District project of the U.S. Army Engineers which developed the atomic bomb. By further development work completed during the year, this same equipment can be made to produce radiation at 160 million volts. Another high-energy electron accelerator under construction in a research laboratory during the year is known as a Synchrotron. This machine increases the energy of electrons by a synchronous radio-frequency field rather than by magnetic induction as is done in the Betatron. When electrons attain energy above one or two million volts, they travel at practically the velocity of light and further driving impulses increase their mass but do not appreciably increase their velocity. In the Synchrotron, a magnet is used to bend fast electrons on a circular path within a doughnut-shaped vacuum tube. As the electrons circulate at practically constant velocity, their energy is increased as they pass through a resonant cavity which is energized by a radio frequency oscillator.

Another new atom-smashing device is known as the Linear Accelerator, an outgrowth of wartime work on radar. Radar development supplied the understanding of conduction of electric waves through hollow guides or "pipes," and promoted the development of tubes for the production of microwave radio energy at high power levels. One form of the linear accelerator employs a hollow tube energized by a very high-frequency oscillator. Electrons injected into one end of this waveguide ride the traveling electric wave to the other end and thereby are accelerated to high energies. Either electrons or heavier particles may be injected into the tube and accelerated successfully on their straight paths down the axis of the wave guide.

To expedite the filling of the public requirements for electrical appliances and construction materials during 1946, electrical manufacturers as a rule concentrated upon the quantity production of only slightly modified versions of the 1942 ap-

pliance models which did not require new machine tools or facilities. Consequently, but few new appliances or electrical construction materials appeared during the year. Deep-freeze units for home use began to make their appearance. An electrically heated comforter made its appearance, and the electrically heated blanket announced last year was developed to the point of dual control to accommodate the differing tastes of the occupants of a double bed. A tiny selenium rectifier, to replace the tube-type rectifiers in portable radios, is much smaller and more rugged, and also requires no warm-up period to go into full operation.

Reflecting the services performed by electrically propelled equipment under wartime conditions, the demand for electric motive power in industrial plants, mining operations, and transportation is at an all-time record high level. Local transportation companies purchased more electric vehicles in 1946 than in any previous year. Railroads have been installing electric propulsion equipment at a rate exceeding 1.5 million horsepower annually. In general, electric transportation equipment has increased during the past six years at about three times the rate of preceding years. The trend of development in electric locomotives has been in the direction of greater horsepower per locomotive unit and considerable increase in power output per pound of weight. Four twin-unit 6,800 horsepower all-electric locomotives were nearing completion for the Virginian Railway for coal and freight haul over mountainous territory; under construction were two all-electric locomotives for freight and passenger service on the Cascade tunnel section of the Great Northern Railway, rated as the largest single-cab locomotives to be built thus far, with a capacity of 5,000 horsepower each. In South America and Europe there has been tremendous expansion in railroad electrification, and much of the motive power and other equipment is being made by American manufacturers.

Diesel-electric locomotives for mainline railroad service as well as for switching and yard work were greatly increased in numbers. Claimed to be the largest in actual operation was a new 3,000-horsepower single-unit Diesel-electric locomotive on the Seaboard Air Line Railway. Diesel-electric locomotives are finding rapidly increased usage in steel mills and other large industrial plants and mines.

Of the 5,737 electric trolley coaches operating or on order for transit companies in the United States as of September 1, 1946, some 28 percent or 1,620 of them represented orders placed during the first eight months of 1946. Electric drive, control, and braking equipment for trolley coaches has been improved. Another important element in local transportation facility is the modern all-electric "PCC" street cars. The "PCC" refers to a special conference committee of transportation utility executives which in the 1930's got together and drew up a standardized design for a vastly improved and generally modernized trolley car for urban use, which became known as the "President's Conference Committee Car." Initially these cars carried some pneumatically operated equipment. The first all-electric car appeared in 1940, and now the all-electric car utilizing electric power for all braking and other operations have become standardized in the industry. As of September 1, 1946, some 1,553 of these cars were in operation or on order. Electric equipment for new subway cars now is reflecting the influence of the highly successful lightweight PCC cars.

New electrical equipment for the metals industry is typified by the drive and accurate control and other automatic equipment being applied to a new cold-rolling-strip mill designed to roll steel sheet and strip at speeds of some 4,000 feet per minute, an enormous increase over the prewar figures. The non-ferrous industry is rapidly expanding, too, as represented by new 48-inch single-stand mills for rolling aluminum; two aluminum-foil rolling mills designed to deliver metal of the thickness of tissue paper at 1,500 feet per minute; a new five-stand tandem hot-strip mill for rolling aluminum driven by a total of 18,500 horsepower in five motors; a 3,200-hp single-stand brass rolling mill. Processing equipment for metal finishing is typified by new continuous strip plating of the electrolytic and hot-dip varieties. One combination annealing and galvanizing line will use a combination high-frequency and resistance-heating furnace with five independently adjustable cooling zones. New zinc-coating production lines will use copper-oxide rectifiers for low-voltage power for electroplating the zinc, in contrast to the ordinary hot-dip process. In the petroleum, chemical, printing, and other industries, new drive and control equipment featuring electronic devices is developing very rapidly.

During the war, one of the invaluable aids in assembling such precision instruments as bomb-sights and binoculars, was the "Precipitron"—an electrostatic air cleaner capable of removing up to 90 percent of airborne dust and dirt particles, including particles as small as those which constitute cigarette smoke. In 1946 the first production models of this device, redesigned for home use, were moving off the assembly lines.

Preliminary engineering and design work was started on four of the most powerful single-unit alternating current motors yet to be built, rated at 65,000 horsepower. Each motor is expected to weigh some 325 tons, the rotor alone weighing 172 tons. Each motor is to drive a pump capable of putting 607,000 gallons of water a minute through an 850-feet-long tunnel, enough water to supply the requirements of a city of the size of New York.

G. Ross Henninger.

ELECTRIC LIGHT AND POWER. Once again, the statistics of the industry as published at the end of the year indicate that the figures representing the United States production of electric power constitute a consistent general index or barometer accurately reflecting the underlying state of industrial economic health. As the production curve of industry as a whole receded from the 1945 level both in total production and in rate of production because of the cumulative result of the wave of strikes, electric power production increased somewhat from its 1945 total and at the year-end definitely established a new all-time high record in weekly rate of electric power production that exceeded by some two percent the 1943–4 wartime weekly output peak.

Production. Electric power production for 1946 totaled approximately 223.3 billion kw-hr, thereby inching above the final verified total of 222.5 billion kw-hr for 1945. This increase, in spite of the relatively flat power-production curve for most of 1945–46, was accounted for by the substantial increase in the rate of power output at the end of the year. The rapidly expanding rate of electric power utilization by small individual rural and urban customers for farm and household light and power accounted for a total sufficiently great to offset the substantial drop in industrial utilization.

The percentage of total 1946 electric power pro-

duction contributed by fuel-burning plants amounted to 65.3 as compared with 63.8 for 1945 and 68.7 for the wartime peak of 1944. Correspondingly, the percentage contributed by hydroelectric generating plants were 34.7 for 1946, 36.2 for 1945, and 31.3 for 1944. In round numbers, privately owned electric utilities produced in 1946 approximately 81.2 percent of the United States total, about the same as in 1945; federal-government-owned projects turned out about 12 percent, and local-government-owned utilities about 6.8 percent. Behind the screen of these general figures, however, the best available year-end statistics indicate that, small as it was, the actual increase in 1946 over 1945 from Government plants (430 million kw-hr) amounts to four times the percentage that is represented in the 398 million kw-hr 1946 increase over 1945 reported for private utilities. Statistics representing this changing relationship in the source of electric power during relatively recent years are given in Table 1 together with other selected power-production statistics. The jump in "uses and losses" back to nearly the wartime high, principally reflects two factors: one, a heavier demand than in 1945 on fuel burning plants as the result of poorer water conditions and consequent reduction in hydro generation; the other, the conditions arising from strikes. For example, in Pittsburgh, Pennsylvania, the local power company was forced to resort to inefficient means of power production and distribution in order to provide the city with emergency power during the power strike. Also, the interruptions in various manufacturing industries reduced the total use of electric power drastically in many instances, but still required that big power plants be kept in operation in order to furnish such power as was needed.

Finances. For 1946, the estimated gross revenue from the sale of electric power in the United States amounted to 3.45 billion dollars as compared with a revised total of 3.341 billion dollars for 1945, 3.28 billion for 1944, 3.08 billion for 1943, 1.75 billion for 1933 and 1.94 for 1929, the so-called boom year. Noteworthy in the figures reflecting electric power sales to large industrial customers is that during 1945 and 1946 the decline from the 1944 high point was at less than half the rate of the increase which took place under the urgency of war production during the two years preceding the 1944 high point. This is of special significance considering the industrial disturbances which have interfered with normal industrial operation since the war, and would seem to indicate an impending substantial increase if or when industry can get going consistently on constructive production. The 1946 sales of electric power to small light-and-power customers, principally commercial establishments, seem to reflect a resumption of something like the normal annual rate of increase which prevailed prewar, but going upward from a base considerably higher than the prewar base.

In homes and on farms, there is a substantial and steady increase in the utilization of electric power. The average residential use rose from 1,229 kw-hr in 1945 to an estimated 1,327 for 1946, the greatest annual increase on record. For this 1,327 kw-hr in 1946, the average customer's bill was $42.93 representing an average rate of 3.23 cents per kw-hr, a new low point in the continuing unbroken downward trend in the consumers' cost of electric power as delivered to him. This trend is in sharp contrast to essentially every other current market index. Corresponding figures for 1945 were 1,229 kw-hr at 3.41 cents per kw-hr; for 1944, 1,151 kw-hr at 3.51 cents; for 1940, 952 kw-hr at 3.84 cents; for 1930, 543 kw-hr at 6 cents; for 1926, 428 kw-hr at 6.98 cents. For the average 1946 rural customer, the annual bill was approximately $82.80 for some 3,600 kw-hr at just slightly less than 2.3 cents per kw-hr; this comparing with 2,980 kw-hr at 2.46 cents for an annual bill of $73.50 for 1945; 2,940 kw-hr at 2.44 cents totaling $71.80 for 1944; 2,750 kw-hr at 2.55 cents per kw-hr totaling $70.00 for 1943. A statistical summary of comparative data reflecting electric power sales and related revenue for 1946 and for 1945 is given in Table 2.

Total electric utility financing for 1946 amounted to an estimated $1,082,447, down approximately one-third from the all-time high of 1945, but still above the billion dollar mark for the fifth time in the history of the industry. New capital accounted for $172,846,000 of the total; refunding accounted for $909,601,000. The new capital issues reaching the market in 1946 represented the greatest annual volume since 1931, although the sale of securities for refunding fell behind the all-time record of 1945 by about one-third. Even so, the 909 million dollars of 1946 refunding was directly instrumental in effecting substantial reduction in capital costs, bringing total capital charges for the electric utility industry to a level lower than they have been any time since 1926, when the electric power output was only about one-third of the 1946 output volume. The 1946 yield of 33 new issues of mortgage

TABLE 1—ELECTRIC POWER PRODUCTION IN UNITED STATES
(Billions of Kilowatt-hours)

Year	U.S Plant Ownership		Energy Source		From Canada	Gross Total	Uses and Losses	Available for Sale
	Private	Gov't	Fuel	Hydro				
1946[a]	181 4	42 0	145 4	78 0	1 8	225 2	34 1	191 1
1945[b]	180 9	41 6	142 5	80 0	1.8	224 3	30 7	193 6
1944	185 8	42.3	156 6	74 0	1.6	232 2	34 1	198 1
1943	181 8	39 1	147 0[b]	73.9	1.5	222 4[b]	35.0[b]	187 4[b]
1942	159 6	29 6	125 0	64.2	1.4	190 6	29.0	159 6[b]
1937	113 4	8 4	77 3	44 5	1 7	123 5	24.2	99 3
1932	87 5	4 9	49 1	33 3	0 4	82 8	19 1	63 7
1929	91 2	4 7	62 7[b]	33.2	1.0	96 9[b]	21 6	75 3

[a] Preliminary figures [b] Revised figures

TABLE 2—ELECTRIC POWER SALES AND REVENUE

	Total Number of Customers	Sales (millions of kw-hr)	Revenue in Thousands of Dollars
Urban Residential			
1946[a]	29,743,000	38,400	1,242,000
1945[b]	28,116,998	34,184	1,167,356
Change	−2,626,002	−4,216	−74,644
Rural			
1946[a]	1,360,000	4,475	105,000
1945[b]	1,234,441	3,668	90,344
Change	−125,559	−807	−14,656
Commercial and Industrial			
1946[a]	4,997,000	148,125	2,101,000
1945[b]	4,669,634	155,706	2,083,818
Change	−327,366	−7,581	−17,182
Total			
1946[a]	36,100,000	191,000	3,450,000
1945[b]	34,031,073	193,558	3,341,518
Change	−2,068,927	−2,558	−108,482

[a] Preliminary figures [b] Revised figures

bonds fell to 2.61 percent, as compared with 2.77 percent for 1945; the average yield of 25 issues of preferred stock declined to 3.56 percent, as compared with 3.86 percent in 1945.

Although capital charges went down relatively, other operating expenses advanced rapidly during 1946. For example, labor costs rose to 550 million dollars as compared to 452 million dollars for 1945. This represents an increase in the average hourly earning rate from $1.19 in 1945 to $1.27 in 1946, reflecting also the industry's restoration of its working force to more efficient levels, including the expansion of its total employment from 222,000 to 246,000 in direct contrast to the very slight increase in total power production. Approximately a 20 percent increase in the industry's fuel bill, resulting from increase in labor and other costs in the coal mining and transportation industries and adding about 41 million dollars, brought the total fuel bill up to about 424 million dollars. The following tabulation indicates a significant shift during the past 10 years in the nature and trend of the items which account for the average dollar of gross revenue from electric power sales:

	1936	*1941*	*1946*
Fuel	8 1	10.1	13 1
Salaries and wages	17 5	16.9	17 1
Other operating expenses	12 1	11 3	13.2
Depreciation	10 3	11 3	9 9
Fixed charges	18 8	12 6	8 3
Taxes	14 7	21.1	18 7
Dividends and surplus	18 5	16 7	19 7
Totals	$1 00	$1 00	$1 00

Operations. Fuel consumption for electric power production for the twelve-month period ending October 31, 1946, including coal, oil, and gas, amounted to the calculated equivalent of 89 million tons as compared with a final figure of just under 93 million tons for 1945 and just under 104 million tons for 1944. Continuing the essentially unbroken upward trend in generating plant efficiency, the nationwide average number of equivalent tons of coal burned per kw-hr generated showed an estimated 1.29 for 1946 as compared with 1.30 for the final figure for 1945, and 1.46 for 1935. Details of fuel consumption covering the same period, as released by the Federal Power Commission, were: Coal, 70.16 million tons; oil, 31.17 million barrels; gas, 303.18 billion cubic feet. With this fuel, an estimated total of 145 38 billion kw-hr was generated from a total station capacity of some 35.36 million kilowatts. Corresponding hydroelectric production was 77.95 billion kw-hr from a station capacity of 14.84 million kw. These figures reflect a fuel production of 4,121 kw-hr per kilowatt of fuel station capacity; 5,240 kw-hr per kilowatt of hydroelectric station capacity; an overall average of 4,453 kw-hr per kilowatt of station capacity, representing a load factor of about 50.5 percent.

Generating Capacity. Whereas there were some 75 power-plant projects totaling approximately 1.5 million kilowatts of new generating capacity on the year's docket as of January 1, 1946, year-end reports showed that only some 37 projects totaling 361,172 kilowatts actually were completed during 1946. This is the smallest annual installation of new electric generating capacity since the worst of the depression years of the early 1930's, and reflects clearly the effect of materiel and other war-born shortages which continued as the result of strikes and other hindrances to industrial production. As the acute obsolescence of generating equipment, engendered by the wartime necessity of keeping equipment in operation beyond its normal operating life, required the retirement from service of some 276,000 kilowatts of capacity, only about 25 percent of the meager 1946 capacity represents an actual net increase in electric generating capacity. If a continuation of unsettled industrial or other conditions should seriously interfere with the 3 million kilowatts of new generating capacity scheduled for 1947, the industry's ability to meet load requirements may be impaired. For 1947, about 85 percent of the new capacity planned is in fuel plants and about 15 percent in hydro plants, of which some 85 percent is government-owned.

New electric generating capacity scheduled for 1948 totals some 7.3 million kilowatts of which fuel plants account for approximately 76 percent, and hydro plants about 24 percent of which about 80 percent will be government-owned. As of the end of 1946, the electric generating capacity owned by the government amounted to some 19.5 percent of the nation's total, and this percentage seems destined to grow. In 1930, the government percentage was less than 6 percent.

For 1946, the percentage of electric generating capacity in fuel plants was 70.5 and in hydroelectric plants, 29.5. Corresponding electric power production was respectively 65 percent and 35 percent, representing a slight increase in the proportion of fuel-plant generation in 1946 as compared with 1945. The Government's 19.5 percent of the total United States generating capacity (principally hydro) produced some 22.8 percent of the total electric output.

Budget. Industrial conditions brought the expected 900 million dollar 1946 budget down to an actual realization estimated at about 718.17 million dollars, falling short of the record 919 million dollar electric utility construction budget for 1930. Far outstripping this old record is the 1947 estimated 1,307 million dollar budget for the privately owned utility industry, to which some 91 million dollars contemplated for federal Government construction of power production facilities must be added, bringing the gross total to nearly 1.4 billion dollars. The 1947 budget appears to reflect the expectancy of about a 30 percent increase in construction costs.

For 1946 the reported expenditures for new construction were as follows: 191 million for fuel-burning power plants; 19 million for hydroelectric power plants; 107 million for transmission lines and substations; 361 million for distribution lines and substations and 41 million for miscellaneous plant improvements. Corresponding figures budgeted for 1947 are: 449 million for fuel-burning plants; 49 million for hydroelectric plants; 213 million for transmission lines and substations; 525 million for distribution lines and substations and 71 million for miscellaneous plant improvements

Trends in the development of electric generating capacity are indicated in Table 3. Geographical distribution of the U S. electric generating capacity as of November 1, 1946 is given in Table 4, from Federal Power Commission statistics. The United States total of 3,858 plants with a total capacity of 50,196,000 kilowatts for 1946 compares with totals of 3,923 plants and 49,902,000 kilowatts for 1945. The drop in total number of operating plants reported reflects the withdrawal from wartime operations of 8 obsolescent hydroelectric and 29 steam-electric plants and the shutdown of some 28 emergency internal-combustion-engine-driven electric generating plants.

Electric power transmission voltages seem to be on the verge of going to still higher levels. Transmission at 220,000 volts dates back to 1930; the

TABLE 3—ADDITIONS TO U.S. ELECTRIC GENERATING CAPACITY

	Fuel Plants or Systems						Hydroelectric Plants or Systems						Grand Total of Fuel and Hydro	
	Public		Private		Total		Public		Private		Total			
Year	No.	Kilowatts	No.	Kilowatts	No.	Kilowatts	No.	Kilowatts	No.	Kilowatts	No.	Kilowatts	No.	Kilowatts
1946	8	56,000	24	299,322	32	355,322	3	3,000	4	2,850	7	5,850	39	361,172
1945	6	100,500	21	521,000	27	621,600	3	265,500	1	300	4	265,800	31	887,400
1944	14	12,527	34	765,510	48	778,037	4	636,500	4	131,355	8	767,855	56	1,545,892
1943	7	144,700	42	1,690,480	49	1,835,100	4	1,051,400	3	37,500	7	1,088,900	49	2,924,080
1942	8	181,500	44	1,574,700	52	1,756,200	6	943,600	3	83,300	9	1,026,900	61	2,783,100
1941	22	188,000	63	2,104,100	85	2,292,100	12	767,800	5	18,400	17	786,200	102	3,078,300
1940	39	243,000	57	1,210,500	96	1,453,900	8	263,200	9	134,800	17	398,000	113	1,284,830
1934						52,800						41,900		94,700
1929						2,081,300						249,200		2,330,500

present high record of 287,000 volts is associated with the transmission of Boulder Dam power across desert and mountain range into the Los Angeles area in southern California. Construction of a section of test line and of necessary associated equipment was well under way in Ohio at the end of 1946, to provide for the experimental transmission of electric power initially at 360,000 volts and ultimately up to as high as 500,000 volts. Utilities and electrical manufacturers are cooperating in this test, for which two 1.5-mile sections of experimental transmission line are expected to be completed and ready for use early in 1947.

Rural Electrification. Some 55,400 miles of rural electric power lines were reported as built by privately-owned electric utilities during 1946, some 96 percent of the total amount originally budgeted for the year in contrast with the relative failure of other phases of the intended construction program. Costs reported reflect a median of about 30 percent increase over prewar levels. Comparable figures for construction show the following: 1945, 31,000 miles; 1944, 11,000 miles; 1943, 4,000 miles; projected for 1947, 64,000 miles! The 16 southeastern and southern states account for nearly half of the rural line construction for 1946 and as projected for 1947.

The Rural Electrification Administration reports for 1946 show an average of 1,578 kw-hr for the average REA consumer, as compared with 1,621 for 1945 and 1,668 for 1944. Corresponding average rates were 3.68 cents per kw-hr for 1946, 3.43 for 1945, and 3.31 for 1944. The average REA consumer's power bill for 1946 was $57.70 as compared with $55.60 for 1945, and $55.50 for 1944. The total number of REA operating systems was reported at 872, servicing 1,675,000 customers; revised figures for 1945 were 848 operating systems servicing 1,409,494 customers. A total of 79 electric generating plants were reported for 1946, with an aggregate capacity of 112,847 kw; revised figures for 1945 were 76 generating plants with aggregate capacity of 92,544 kilowatts.

Electric power generated by REA systems for 1946 was reported as 322 million kw-hr as compared with 258.1 million kw-hr for 1945; an additional 2,648 million kw-hr were purchased by REA systems, as compared with 2,343 million kw-hr purchased in 1945. Some 500,000 miles of line were reported to be in operation in 1946, serving an average of four customers per mile, as compared with 449,493 miles of line with 3.15 customers per mile in 1945.

Public funds, representing the United States taxpayers' money, that had been allocated to REA by the end of 1946 amounted to some 957 million dollars, nearly a 50 percent jump over 1945. On the basis of the number of consumers as reported to be served by REA lines at the end of 1946, this amount represents a free allocation of some $583 of tax-payers' money to *each* REA customer; private electric utilities have no such access to free public funds, but have to pay interest and dividends on such financing, in addition to paying substantial taxes on the property and equipment involved.

Government. Culminating years of litigation, the U.S. Supreme Court in 1946 gave two decisions upholding the long-disputed "death sentence" clause of the Public Utility Holding Company Act of August 26, 1935. The first decision was given on April 1 against the North American Company, upholding the constitutionality of that Section of the Act which requires the limitation of interstate gas and electric holding companies to a single integrated system located in one geographic area. The other decision was given on November 25 against the American Power & Light Company and the Electric Power and Light Corporation, both of which are holding companies in the Electric Bond and Share Company's holding-company system. This decision upheld that Section of the Act which prescribes that the Government legally can require the dissolution of "useless holding companies." Both decisions were on a six-to-nothing basis, three of the justices abstaining from voting. The "death sentence clause" states that each holding company must be required to "take such action as it shall find necessary to ensure that the corporate structure or continued existence of any company in their holding company system does not unduly or unnecessarily complicate the structure or unfairly or inadequately distribute voting power."

TABLE 4—DISTRIBUTION AND NATURE OF ELECTRIC GENERATING CAPACITY REPORTED IN ELECTRIC UTILITY POWER PLANTS AT CLOSE OF 1946

	Fuel [a]		Hydro	
Area—State Groups	No of Plants	Kilowatts (Thousands)	No of Plants	Kilowatts (Thousands)
6 New Eng	91	2,301	222	895
3 Mid Atl.	166	8,924	200	1,591
5 E No.-Cent.	377	10,830	292	738
7 W. No.-Cent.	746	2,940	135	562
8 So Atl.	227	4,353	159	2,221
4 E So.-Cent	96	1,206	39	2,221
4 W So.-Cent	360	2,338	36	371
8 Mountain	216	672	199	2,004
3 Pacific	79	1,793	218	4,236
Totals	2,358	35,357	1,500	14,839

Over-all U.S. Total 3,858 plants, 50,196,000 kw. capacity

[a] Includes both steam and internal-combustion-engine plants

With the last hope exhausted, the larger holding companies submitted to the Securities and Exchange Commission what they called "disintegration" plans beginning 18 days after the April decision and continuing throughout the remainder of the year. At the year's end, the SEC reported that among its 1946 accomplishments was the approving of nine plans submitted by various holding companies "relating to integration, corporate simplification, and reorganization of public utility holding company systems," stating further that its "integration and simplification program is proceeding toward rapid accomplishment."

At the beginning of 1946, Secretary of Interior Harold L. Ickes issued a department policy calling for the provision of steam-electric generating plants

as standby facility for every Federal hydroelectric power plant, hydroelectric generating facilities to be designed and installed "at all possible department projects," extensive electric power transmission systems to be built in every region containing Federal generating stations regardless of the existence of such private facilities. He called also for "active assistance from the very beginning" in the organization of new public power agencies and cooperatives. In March, J. A. Krug took over from Ickes as Secretary of the Interior, and thus inherited administrative responsibility for the federal Government's huge variety of electric power, reclamation, and other projects.

During the progress of the coal strike in the fall of 1946, the federal Government acted to bring wartime "brownout" orders back into effect in those areas where electric power is especially dependent upon coal. The restrictions were lifted at the termination of the strike.

The Tennessee Valley Authority reported that its 1946 net earnings were $16,214,000. Taking exception to this claim, the Edison Electric Institute, a trade association representing about 75 percent of the privately-owned electric light and power industry, asserted that the reported TVA profit was only a "paper profit" achieved by virtue of bookkeeping practices wherein the expenses properly chargeable to electric power development and generation were "sloughed off to other operations." The Institute claimed that TVA actually operated at a net loss to United States taxpayers of $8,041,000 for 1946, and that its total loss since its inception in 1934 is "almost one hundred million dollars."

G. Ross Henninger.

EL SALVADOR. A republic of Central America. Area: 13,176 square miles. Population: 1,896,000 (1943). Capital. San Salvador.

Although much of the country is volcanic highland, there are fairly extensive lowlands along the Pacific coast and in the valley of the Rio Lempa, which cuts across the highlands. The mean annual temperature at San Salvador is about 73 degrees, while the mean annual range of temperature throughout the country does not exceed 50 degrees. Heaviest rainfall occurs between May and November.

The People. El Salvador is the most densely populated country in Central America. Inhabitants per square mile range from 87 4 in the Department of Chalatenango to 292.2 in the Department of San Salvador. Mestizos constitute 80 percent and Indians 19 percent of the total population. The largest cities are: San Salvador, 105,000; Santa Ana, 46,000; and Nueva San Salvador (Santa Tecla), 24,000.

Spanish is the official language, Roman Catholicism the predominant religion.

According to the census of 1930, 21.2 percent of the population is literate. In 1941, 89,792 students were enrolled in 1,330 primary schools; 3,309 in 58 secondary schools, and 506 in the National University.

National Economy. El Salvador is primarily an agricultural country. Coffee is the principal export crop, but substantial quantities of corn, sugar, beans, rice, cotton, and henequen are raised for domestic use. The 1944–45 coffee crop was estimated at 920,000 bags (of 60 kilograms each), valued at $22,986,000.

Gold and silver are the principal mineral products of El Salvador. In 1944 gold production amounted to 23,110 troy ounces valued at $799,393; silver production totaled 276,284 troy ounces valued at $122,645. There is little manufacturing, but a number of small industries are engaged in processing agricultural products, and produce manufactured articles for the domestic market.

Foreign Trade. Coffee is the chief export product of El Salvador, which ranks third among the coffee-exporting countries of Latin America. In 1944–45 coffee exports totaled 997,539 bags of 60 kilograms each, of which about 90 percent went to the U.S. Gold and silver rank second in importance in the country's export trade. Other exports are sugar, rice, and henequen sacks. In 1943 coffee represented 87 percent of the value of total exports; gold and silver accounted for 6 percent. The U.S. is the most important market for El Salvador's exports, and took 80 percent of the total in 1943.

The U.S. is the leading supplier of Salvadoran imports, and in 1943 provided 69 percent of the total imports. Manufactured and semi-manufactured products, foodstuffs, and beverages form the major imports of the country.

In 1943 imports amounted to 29,857,429 colones, and exports totaled 56,324,442 colones.

Government. El Salvador's Constitution of 1939 provided for a centralized republic of 14 departments, with a unicameral legislature, the National Legislative Assembly, of 42 members. The Assembly met regularly twice a year, Feb. 15 to May 15, and Oct. 15 to Jan. 2. The President was directly elected and was assisted by a Cabinet of 5 members. An amended version of the Constitution of 1886 was adopted on Nov. 30, 1945, to replace the 1939 Constitution. The President is Salvador Castaneda Castro.

Events, 1946. During the summer the issue of freedom of the press produced extreme political agitation and forced the resignation of the Supreme Court in El Salvador. After Castenada Castro won the presidential election in January, 1945, he was bitterly attacked by the National University weekly, *Opinion Estudiantil*. Interior Minister Dr. Benjamin Escobar, who was also attacked, filed suit for libel, and the student editors were convicted and ordered arrested. When the conviction was appealed to the Supreme Court, the verdict was reversed and Supreme Court President Dr. Felix Antonio Gómez acquitted the students.

A few days later Judge Gómez announced that under the Martinez law of 1933, the printers, not the writers of articles, were responsible in libel suits. The sudden judicial turn-about caused a furor as the university students prepared to demonstrate in protest against the Supreme Court. President Castro called an emergency session of the National Assembly on the day of the scheduled demonstration, relieved the members of the Supreme Court and appointed a new Court. The demonstration was carried out without disorder.

On September 13 El Salvador and Guatemala agreed to sponsor an international commission which would draft plans for federating the five Central American republics. The agreement was left open for endorsements by Costa Rica, Honduras and Nicaragua. Once this was accomplished, the commission would begin studies on problems common to Central America. The two signatories emphasized that any agreement would conform to the principles of the Chapultepec Act and the United Nations Charter.

Increasing opposition to the Government, accompanied by a general strike, brought rigid press censorship and a state of siege on September 15. To conciliate the opposition from political groups and university students, President Castro on Sep-

tember 21 dismissed three of his five Cabinet ministers. A few days earlier, in response to a violent outbreak in San Salvador, the President ousted the National Police Director and his deputy. Censorship prevented any news dispatches from El Salvador, but on November 17 it was learned from Guatemala that the President intended to maintain the state of siege until after the coffee harvest, allegedly to prevent any disturbances that might adversely effect the economy.

EMPLOYEES' COMPENSATION, Bureau of. This bureau was created within the Federal Security Agency to perform the functions of the former United States Employees' Compensation Commission (abolished by Reorganization Plan II), which were transferred to the Federal Security Agency (Reorganization Plan II of 1946, effective July 16, 1946). The Bureau administers the Federal laws establishing workmen's compensation programs for employments within Federal jurisdiction. Director: William McCauley.

EMPLOYMENT SERVICE, United States. After almost 5 years under Federal direction, administration of state and local offices of the United States Employment Service was returned to the 48 states and to the Territories of Alaska and Hawaii on November 16, 1946. Local USES offices in the District of Columbia and Puerto Rico continue under operation of the United States Employment Service, Department of Labor. The Federal government finances operations of the State and Territorial Employment Services 100 percent.

The nation-wide system of Employment Services, established under provisions of the Wagner-Peyser Act of 1933, was federalized in January 1942 to conduct the wartime mobilization of the country's manpower. In July 1942 the USES became the operating arm of the War Manpower Commission, created by Executive Order of President Roosevelt on April 18, 1942. During the war years, and the first 15 months of the reconversion period, the 1,800 local USES offices made more than 50,000,000 placements in American industry and commercial establishments. The full impact of demobilization and reconversion struck the USES offices immediately after the war with Japan ended. Visits to USES offices in July 1945 totaled less than 5,000,000. In March 1946 they totaled 14,499,000. For the fiscal year which ended June 30, 1946, they totaled 128,000,000.

In the early years of its existence the Nation's Employment Service was principally engaged in referring workers to Public Works and Works Progress Administration projects. After 1938, until the Defense and subsequent War Production Programs, its major activities were in finding jobs for unemployed workers and, where this was impossible, in referring them to Unemployment Compensation Bureaus for jobless benefits.

In July 1939, because of this activity, the United States Employment Service was merged with the Unemployment Compensation Bureau of the Social Security Board, and the two became the Bureau of Employment Security. This merger was dissolved when the USES became the operating arm of the War Manpower Commission. When WMC was dissolved by Executive Order of President Truman on September 19, 1945, the USES was returned to the Department of Labor.

As stringencies developed in the defense program and later the wartime labor market, discussions and programs to control hiring, to avoid labor piracy, and to effect a more equal distribution of the available labor force, were developed. Community control programs on a nation-wide scale came in 1943. Wartime activities of the USES included development of manpower utilization designed to place workers in jobs which would utilize their highest skills and to effectively utilize training and worker-promotion techniques; manpower stabilization plans to exert some control over unorganized migration of workers and labor piracy; and preparation of: (a) A List of Essential Activities; (b) A List of Essential Occupations; and (c) A List of Critical Occupations. Through these measures the manpower resources of the nation were mobilized and distributed where they would be most effective in war production.

The Servicemen's Readjustment Act of 1944 imposed special responsibilities in behalf of veterans upon the USES. These include employment counseling, preferential referral to job openings for which the veteran is qualified, selective placement for disabled veterans, and information service through which veterans are informed of benefits and services available to them through other agencies. These services are available in all offices of the Federal-State Employment Service. They are augmented by Field and National activities of the Veterans Employment Service, a branch of the USES. Policies of the VES are established by the Veterans Placement Service Board, composed of the Administrator of Veterans Affairs, the Director of the Selective Service System, and the Secretary of Labor. These policies are effectuated by the USES.

Organizationally, with return of the state and local office administration to the states, the Employment Service has become a Federal-State system with the Federal government responsible for the promotion and development of a nation-wide system of local employment offices. To achieve this objective the Federal government is obliged to establish and maintain minimum standards for State Employment Service operations; engage in program development for improvement of the services; obtain the best current experience of each state and make it available to all states; provide technical assistance; maintain a uniform reporting system and exchange of labor market information among local offices; review and approve state plans of operation; allocate funds and audit expenditures of monies; and evaluate state operations to determine effectiveness of performance.

Regulations promulgated by the Secretary of Labor, in keeping with provisions of the Wagner-Peyser Act, as amended, and the Servicemen's Readjustment Act, as amended, impose upon the states responsibilities for: Maintaining an effective placement service to facilitate the employment and reemployment of veterans, displaced former war workers, youths entering the labor market, disabled veterans and other handicapped workers, old workers, women, and all other persons seeking jobs; providing employment counseling to veterans and all other workers; providing special services to veterans as required under the statutes; assisting employers and labor organizations, through personnel management services, in the use of personnel tools and techniques developed by the Employment Service for effective selection, assignment, and transfer of workers; disseminating labor market information; and cooperating with community organizations and government agencies in programs for increasing economic activity and maintaining high levels of stabilized employment.

ROBERT C. GOODWIN.

ENGLAND, Church of. The year 1946 developed with great importance because of two actions by the Archbishop of Canterbury. The first was his invitation to the leaders of the Free Churches to consider whether they wished to revive the question of reunion as a vital issue so that any proposals they might desire to make could be discussed at the Lambeth Conference of the bishops of the Anglican Communion in 1948. He looked forward to a reunited Church within which the Methodists, Congregationalists, Baptists, and Presbyterians would function with an identity of their own.

The second was a gesture to non-Anglican Churches made by the Primate in a sermon before the University of Cambridge on November 3. In this he suggested that "constitutional union" might be a difficult goal, taking a long time, but that "full communion" might prove easier.

In April an urgent appeal was launched by the Archbishops of Canterbury and York for £600,000 towards the £650,000 required for training those who should be approved among the 5,000 War Service candidates for ordination who had come forward. Up to November 11, £111,182 had been received.

In the closing months of the year the subject of the extreme poverty of the clergy of the Church of England came to dominate all others, as it became increasingly realized that almost all of them were suffering acute hardship and hundreds were desperate. Their already inadequate prewar incomes were not augmented as prices rose; and after World War II the Common Fund of the Ecclesiastical Commissioners (which is the principal source of their stipends) suffered several setbacks. The Government's announced policy of nationalizing transport, with its resultant prospect of reductions in the Commissioners' income from railway stock, also imposed a hardship on the Church's economy.

Other events of the year included important schemes for reorganization in various dioceses including London, where it was proposed to sell the sites of some of the worst bombed city Churches and build new churches in the suburbs; and a pronouncement by the Archbishop of York in a presidential address to the Convocation of York, warning those contemplating "mixed marriages" with Roman Catholics against the danger of signing away the rights of unborn children.

ENGRAVING AND PRINTING, Bureau of. A Bureau of the U.S. Department of the Treasury which designs, engraves, and prints the U.S. currency and other engraved work for governmental use. Director: Alvin W. Hall.

ENTOMOLOGY AND PLANT QUARANTINE, Bureau of. A Bureau of the U.S. Department of Agriculture, which studies insects that are injurious or beneficial to agriculture and forestry, develops new insecticides and fungicides, etc., and enforces quarantine and restrictive orders issued under the Plant Quarantine Act. Chief: P. N. Annand.

ERITREA. An Italian colony on the west shore of the Red Sea, incorporated in Italian East Africa on June 1, 1936, but under British Military Administration since its conquest by Allied forces in 1941.

The People and Their Economy. The population of some 700,000 lives in an area of 15,754 sq. mi. though they tend to congregate on the central plateau, where the climate is cooler and moister. On this plateau live the Christian (Coptic) element, racially and linguistically akin to the Ethiopians. In the lower regions dwell various peoples, largely Hamitic and Moslemized. In the cities and towns on the coast Arab communities are found.

The only port of any importance is Massowah. The capital is Asmara (7,765 feet above sea level) where there is still a considerable Italian population. A railway leads from Massowah through Asmara almost to the Sudan frontier. There is also a system of highways, some of them built or improved during the 1935–36 campaign against Ethiopia. After 1941 the Americans and British made good use of Eritrea's communication and industrial facilities for the prosecution of the campaign in Libya. Relatively little trade originates in Eritrea since the colony produces only a few exportable items such as hides and salt. The transit trade—from the Sudan, Ethiopia and lower Arabia—is also of only minor importance.

Events. The fate of Eritrea was the subject of discussion and dispute among the victorious Powers throughout the year—at meetings of the Big Four Council of Ministers, of their Deputies, and of the 21-nation conference held in the Luxembourg Palace at Paris. The issue was not resolved but postponed for settlement sometime in 1947. (For further details see LIBYA.) The Ethiopian Government put in a strong claim to Eritrea on historical, ethnic, cultural, and economic grounds, and the British Foreign Office indicated sympathy for this point of view. (See ETHIOPIA.)

The colony continued to be governed by the British Military Administration, which, however, kept a number of Italian—i.e., Fascist—functionaries in office. Though the British maintained that this was necessary since they did not have enough officials of their own, it inevitably led to complaints from the Eritreans and from their Ethiopian kinsmen across the border. Relations between the natives and the Sudanese soldiers of the occupying forces were far from cordial and seem to have been a contributory cause for an armed clash on August 28 in Asmara that resulted in the killing of over twoscore Eritreans by the Sudanese. This massacre aroused high emotions in Addis Ababa and led to further demonstrations in Eritrea on behalf of union with Ethiopia. Another cause for serious complaint was the decision, announced by the British authorities early in the year, to let some 300 Italian businessmen and managers return to Eritrea to look after their affairs.

ROBERT GALE WOOLBERT.

ETHIOPIA. An empire in northeast Africa, comprising the Abyssinian highlands and adjacent lowland areas to the east, south and west. Its area is around 350,000 square miles—some of the country's boundaries have not yet been delimited exactly. Addis Ababa (population 200,000) is the capital. Other important cities are Harar, Dire Dawa, Gondar and Dessye.

Characteristics of the Population. Estimates of Ethiopia's population vary widely, for there has never been a proper census. The actual figure is probably somewhere around eight or ten million.

The Amharas, who have long constituted the ruling element in the empire, probably number less than 3,000,000. They speak various derivatives of the ancient Ge'ez, a Semitic language introduced from Southern Arabia. Amharic, the most widely used of these modern tongues, is the official language of the Imperial Government. However, various other languages are spoken by the majority of the people: Galla, Somali, Danakil, Arabic, etc.

The Amharas are Coptic Christians, as are some of the Gallas. The Somali, Danakil, many of the

Gallas, and some of the peoples of southwest Ethiopia profess Islam. A number of pagan tribes are also found in the latter region. The city of Harar is the center of Moslem culture for the entire Horn of Africa.

The Coptic Church is politically powerful and owns considerable tracts of land. The clergy is numerous, and in the aggregate represents a force opposing progress. Hitherto the Abuna, or head of the Ethiopian Church, has always been an Egyptian appointed and consecrated by the Coptic Patriarch of Alexandria. However, the Ethiopian Government announced in May, 1944 (see YEAR BOOK for 1944) that when the incumbent Abuna Qirillos had ceased to reign, his successor would be appointed by the Emperor. Later, the Government decided not to wait for the death of Qirillos (see *Domestic Affairs*). The link between the Egyptian and Ethiopian branches of the Church was severed entirely during the Italian occupation. Non-Christian religions are not only tolerated, but the Government supports several Mohammedan schools.

Elementary education is provided, primarily for boys, by government and mission schools in the principal cities. So great had been the disruption wrought by the Italian occupation that Ethiopia's educational facilities have had to be rebuilt virtually from the ground up. Many of the educated young men—perhaps as many as 80 percent of them—were killed by the Fascists as a matter of policy. In addition to numerous old-style Church schools, there were, by September 1945, 171 modern government schools: 28 in Addis Ababa and 143 in the provinces. Those in the capital included arts and crafts, teacher training, technical and commercial schools. The students attending government schools numbered 31,542. Higher education is just getting under way, but considerable progress is anticipated since this matter is very close to the heart of the Emperor. The education budget rose from £96,000 for 1943–4 to £696,340 for 1945–6.

Government. Ethiopia merits the title of empire because it consists of several ancient kingdoms (such as Tigré, Amhara, Shoa and Gojjam) and comprises peoples who are alien in race and culture to the politically dominant Abyssinians of the plateau. The creation of this empire was the work of several generations, reaching its apogee under Emperor Menelik II (1889–1913).

The political and social structure of Ethiopia is still largely feudal, though the present ruler—Emperor Haile Selassie I—has been making some headway against the entrenched conservatism of the aristocracy and the clergy. At least a nominal modification was introduced into the system of absolute monarchy when in July, 1931, Haile Selassie decreed the creation of a Parliament. This body, first convened in November, 1932, consisted of two houses—a Senate and a Chamber of Deputies—all of whose members were nominated and whose functions were merely advisory. The Senate consisted of 27 members chosen from the hereditary chiefs of the provinces, while the Deputies were selected by the Emperor from among civil and military officials. There was also an Imperial Council, with the Emperor acting as his own Prime Minister.

Ethiopia was overrun by Italian troops in 1936 and annexed to Italy. Eritrea and Somalia were joined to it in order to form Italian East Africa, administered by a Viceroy representing the King-Emperor in Rome. This came to an end when Allied forces reconquered the country and restored Haile Selassie to his throne (May 5, 1941). The boundaries as of 1935 were supposedly also restored, though the territorial provisions of the eventual treaty of peace with Italy may alter them somewhat. After a brief period of British military administration, Ethiopia recovered her complete sovereignty *de jure* and became one of the United Nations. Still under British military administration is the Ogaden and certain "reserved areas" around Harar. Since his return from exile, Haile Selassie has resumed the process of strengthening the central administration and reforming that in the provinces. He has also called in numerous experts from Britain, the United States, Soviet Russia and other countries to give advice in various technical fields. He has further sought to create a corps of trained Ethiopians, especially from among the younger men, who will be loyal to him rather than to the feudal chiefs, and on whom he can rely to modernize his state.

During the fiscal year 1943–44 (ending September 10) the Ethiopian budget was balanced at 38,956,058.74 Maria Theresa thalers. Revenues were set at 31,702,599.91 (including a 5,000,000 subsidy from the British Government) and expenditures at 33,472,740.67. The 1944–45 budget contained comparable figures. Some $40,000,000 in new currency has been put into circulation.

A new Ethiopian army is being created to provide a modern defense force that can operate more quickly and effectively than the old provincial feudal levies. It has been trained by British officers, as has the newly formed police force. Equipment consists of old Italian arms, British materiel and Lend-Lease items from the United States. The new army, including regulars and territorials, is said to comprise some thirty battalions.

Domestic Affairs. The government of Haile Selassie continued to make progress toward consolidating the administration of the country and effecting a number of needed reforms. His determination to secure autonomy for the Ethiopian Church led him to send a mission to Egypt in order to negotiate the matter with the Coptic Holy Synod. Early in February it was learned that this body had agreed to let the Ethiopians choose their own archbishop and four bishops, provided these were later consecrated by the Patriarch in Cairo. The Synod wished to delay the naming of a new archbishop as long as the incumbent held office, but the Ethiopians wanted him replaced at once. This and other points of dispute kept the two parties from coming to an immediate agreement, despite the urgings of the Egyptian government, which took an active interest in reaching a settlement.

The Emperor's program of expanding educational facilities resulted in the opening of a number of new schools—primary, secondary, and professional—in the capital and in the provinces. The educational budget for this fiscal year beginning in September carried provision for more than double the existing number of schools and pupils. Plans included the inauguration of a university college, an agricultural college, 137 preparatory schools and 13 elementary schools. Likewise in the realm of health and sanitation notable progress was recorded. During the summer a group of Soviet doctors, medical assistants and nurses—the second Russian mission to be sent out—arrived in Addis Ababa, where it was to establish a hospital and clinic as well as a medical school from which students would go to Russia for further training.

Economic Development. During the year regular air services were started by Ethiopian Air Lines between Addis Ababa and Cairo via Asmara (twice

weekly), and from Addis Ababa to Jibuti and Aden (weekly). Though this corporation was an agent of the Ethiopian government, its technical operations were in the hands of T.W.A., an American firm operating services from the United States to Cairo. According to the Ethiopian company's charter, it was also to run lines from Addis Ababa and Asmara to Khartoum as well as local flights within the country.

Ethiopia's principal avenue for foreign trade, the Addis Ababa–Jibuti railroad, had fallen into considerable disrepair, with much of its locomotives and rolling stock hoarded by the French along their small stretch of the line in French Somaliland. During British military rule ordinary commercial traffic had had to wait while military traffic was taken care of. The situation began to improve in 1946, when the British Military Administration (in September) handed over operation of the line in Ethiopia to the Franco-Ethiopian Railway Company. The Ethiopian authorities had already entered agreements with the latter, stipulating that the company was to operate and develop the entire line, and that an arbitral tribunal be set up to settle disputes that should arise concerning the terms of the concession.

The unsatisfactory state of the railroad was a principal reason why UNRRA was unable to take full advantage of Ethiopia's offer, made in April, to furnish 100,000 tons of grain and other foodstuffs, as well as 10,000 tons of coffee, during the following year and a half. These quantities were available for export, but the means to get them to tidewater were lacking.

Under-Secretary of War Kenneth Royall revealed in Cairo on March 25 that a credit of $1,000,000 had been extended to Ethiopia to enable her to purchase surplus American military supplies in the Middle East. In mid-July the Governor of the Bank of Ethiopia, George Blowers, obtained a $3,000,000 loan from the Export-Import Bank, to be used in purchasing American capital goods, such as trucks, road-building equipment, and milling and mining apparatus. He foresaw a rise in the value of trade between the two countries from one to three million dollars. Most of Ethiopia's foreign commerce would, of course, remain with the Middle Eastern countries. He reported that Ethiopia's finances and currency system were in a sound state.

Operations got under way during the year for the exploitation of the Sinclair oil concession described in the YEAR BOOK for 1945 (p. 189).

Peace Treaty with Italy. The terms of the treaty of peace with Italy were under discussion throughout the year by the Council of Ministers (the Big Four), by their Deputies, and by the 21 Powers who had declared war on her, including Ethiopia. The latter's demands on Italy might be grouped under three heads: (1) territorial—i.e., Eritrea and Somalia; (2) financial—reparations; and (3) judicial—the trial of alleged war criminals such as Marshals Graziani and Badoglio. The Ethiopian government presented its case concerning these three categories of claims, by means of reasoned and documented memoranda, to the Council of Ministers and their Deputies, and through its own representatives at the 21-Power Conference held at the Luxembourg Palace in Paris during the late summer and early fall.

The course of the general discussions by the Big Four Ministers and the Luxembourg Conference has been briefly described in the article on LIBYA, and will not be repeated here. The basis of Haile Selassie's territorial claims to Eritrea and Somalia was the historic, ethnic, cultural, and geographic unity of those areas with Ethiopia. Speaking on May 5, the tenth anniversary of the fall of Addis Ababa and the fifth of his return to the throne, Haile Selassie pleaded for a peace with justice, to small nations as well as great. On May 10 Foreign Secretary Bevin told the Council of Ministers in Paris that Britain was not disposed to reach any decision on the fate of Eritrea until Ethiopia had been consulted. Earlier, on April 29, he had suggested letting Ethiopia have the port of Assab in Eritrea. On May 17 the newly arrived Ethiopian Minister in Washington, Ras Imru, cousin of the Emperor, reiterated his government's opposition to any trusteeship arrangement over Eritrea since this would prevent its return to Ethiopia. He emphasized the importance for his country of obtaining an outlet through the Eritrean port of Massowah.

The Big Four decided, late in June and early in July, that Italy must renounce sovereignty over her African colonies but that their ultimate disposition should be fixed only after a year's interval. The necessity for waiting a year to obtain what they regarded as simple justice was not pleasing to the Ethiopians. At the Luxembourg Conference Ethiopia's case was outlined in plenary session on August 2 by the head of her delegation, Aklilu Abte Wolde, who reminded his listeners of the tremendous damage done to his country and people by the Fascist regime. The reparations bill handed in by his government amounted to some three billion dollars. The Conference's Commission on Italian Economic Problems voted on October 5 that Ethiopia should receive $25,000,000 in reparations. Already, on September 25, the British representative on the Political and Territorial Commission for Italy had remarked that his government was favorably impressed with Ethiopia's claim to Eritrea. But there the question rested, presumably to be taken up again in 1947.

The Economy of the Country. Ethiopia is far from being a rich country. Few minerals have been found under her soil outside of small amounts of gold and platinum. From time to time explorers and promoters have reported the discovery of deposits of coal, iron and oil (see YEAR BOOK for 1945, p. 189). There is considerable potential water power in the rivers, notably the Blue Nile, but this can be harnessed only by sinking large amounts of capital—and the Ethiopian Government has been loath to open the country to foreign speculators. Several years ago the J. G. White Company of New York surveyed the power resources of the Blue Nile, but the Italian invasion cut short any development at that time. Parts of the ancient forests, for which the Abyssinian plateau was noted, may still be found in some of the more inaccessible regions.

Stock-raising and agriculture form the main occupations of the people. Both are conducted on rather primitive levels except where European influences have made themselves felt. The nature of the products naturally varies according to climate, altitude and other environmental factors. Cattle and sheep are found in the highlands, camels and donkeys in the lowlands. Cereals are raised widely. Very little agricultural produce is exported, each region being largely self-sufficient. The Ethiopian Ministry of Agriculture provided the following estimates in 1945: wheat, 1,700,000 hectares and 420,000 tons of grain; barley, 1,300,000 hectares and 800,000 tons; maize, 1,500,000 hectares and 1,800,000 tons; giant millet, 3,000,000 hectares and 4,500,000 tons; cattle, 12,000,000; sheep and goats, 2,000,000; horses and mules, 2,000,000; camels, 500,000. The principal exports are coffee, hides

and skins. Imports consist largely of cloth and other manufactured articles. For 1944–45 the exports were valued at £3,134,076 and the imports at £3,768,039.

Ethiopia, being without a coastline, must find outlets for her meager trade through other countries. The only railway goes from Addis Ababa to Jibuti in French Somaliland, a distance of 486 miles. It is owned and operated by a French company. One of the few benefits conferred by Italian rule was the construction of new roads. In 1935 the highways totalled 2,730 miles. The Italians improved these and added 4,340 more, of which 1,732 were macadamized and 1,401 asphalted. They also built a number of airports, thereby opening up remote and inaccessible parts of the country. One of the problems facing the Ethiopian Government at present is how to keep these roads and airports in repair.

ROBERT GALE WOOLBERT.

ETHIOPIAN ARTS AND CRAFTS. With the coming of the end of the global war, price controls in Ethiopia were relaxed and the local artisans again set themselves to the production of their fine handicrafts.

During 1946 there was a great increase in the production of articles from the famous native Ethiopian straw. Hand-woven baskets, mats, blankets, jewelry boxes, doilies and center pieces, and, of course straw hats, appeared again in a variety of colors.

A larger number of hides were kept in the country than formerly and one was able to find in the local stores such hand-made leather goods as women's and men's boots and shoes, saddles, women's hand-bags of rare fineness and beauty, pistol cases, sole leather and uppers of every conceivable color, and many other trinkets and curios in leather.

There was an increasing demand for articles made of bone, and during the year there appeared such items as pipe and cigarette holders, combs, inkstands, shoe horns, tumblers, etc.

Comparatively speaking, the imports on cloth were down, owing to the many new designs and colors, in fabrics made in Ethiopia, for the first time. Cotton towelling, blankets, checkered spun and striped cloth, and woolen comforters in many different colors were among the year's products made in the country.

The glass works opened again during 1946, and hit a high stride in the amount of finished work turned out. Formerly all glassware was imported. Now one may purchase locally made tea-cups, jugs, tea-pots, saucers, plates, bowls, butter and cake dishes, vases, glasses, chemical tubes, fruit bowls, and numerous glass ornaments in colors.

The Ethiopians are age-old masters in the art of jewelry making. Native artisans have always made a large number of silver and gold crosses, rings, necklaces, and other emblems and trinkets. The western influence has crept in, and one may find such hand-made articles as calipers, squares, and slide rules.

These are but a few of the many arts and crafts for which the Ethiopians are famous. A program has now been instituted in the school system so that young apprentices may learn these age-old arts from masters in the trades.

PETROS SAHLOU.

EUROPE. A continent with an area of about 2,079,000 square miles (excluding European U.S.S.R.) and a population estimated at 402,550,000 (excluding the population of European U.S.S.R.) on January 1, 1940. See the article on each European country.

EVANGELICAL AND REFORMED CHURCH, The. A denomination formed by the merger in Cleveland, Ohio, on June 26, 1934, of the Evangelical Synod of North America and the Reformed Church in the United States. The highest judicatory is the General Synod, which meets triennially. A new Constitution was declared in effect at the meeting of the General Synod, held at Lancaster, Pennsylvania, in 1940. In 1942 a new Book of Worship and Hymnal were formally adopted by the General Synod while in session at Cincinnati, Ohio. President: Rev. Dr. L. W. Goebel, 77 W. Washington St., Chicago 2, Illinois. First Vice President: Rev. Dr. John Lentz. Second Vice President: Mr. Edward Dirks. Secretary: Rev. Dr. William E. Lampe, 1505 Race St., Philadelphia 2, Pennsylvania. Treasurer: Mr. F. A. Keck, 1720 Chouteau Ave., St. Louis 3, Missouri.

In its combined statistics for the year 1945, the Evangelical and Reformed Church reports a membership of 695,971 in 2,806 congregations. Total expenditures for congregational purposes amounted to $10,951,606, and total benevolences to $3,175,680. The Sunday School enrollment is 42,296.

EXECUTIVE OFFICE OF THE PRESIDENT. An office of the executive branch of the United States Government which included in 1945 the following divisions: The White House Office; Bureau of the Budget; Liaison Office for Personnel Management; and the Office for Emergency Management.

EXPERIMENT STATIONS, Office of. An Office of the United States Department of Agriculture, whose functions date back to 1888. It administers Federal funds provided under various acts for the support of research in agriculture, the rural home, and rural life by experiment stations in the several States, Alaska, Hawaii, and Puerto Rico. Chief: R. W. Trullinger.

EXPORT-IMPORT BANK OF WASHINGTON (EIB). Created in 1934, the bank was made a permanent independent agency of the U.S. Government by the Export-Import Bank Act of 1945, approved July 31, 1945. The purpose of the Bank is to aid in the financing of exports and imports between the United States and foreign countries.

The Act of 1945 vested the management of the Bank in a board of directors consisting of the Secretary of State and four full-time directors, appointed by the President, by and with the advice and consent of the Senate. It also authorized an increase in the limit on outstanding loans and guaranties from $700,000,000 to $3,500,000,000 and removed the prohibition on loans by the Bank to governments in default on their obligations to the U.S. Government.

This increase in the lending authority of the Bank has permitted it to extend long-term reconstruction credits to liberated and war-devastated countries to assist them in purchasing from the United States the equipment, materials, and services required for the restoration of their economies. Largely because of credits of this type, the cumulative total of authorized loans of the Bank from the date of its establishment increased from approximately $1,200,000,000 at the end of 1944 to more than $3,500,000,000 at the end of 1946. Disbursements during 1946 were approximately $1,037,000,000, and repayments were approximately $40,000,000. As a consequence, the outstanding

loans of the Bank increased from $245,000,000 at the end of 1945 to $1,242,000,000 at the end of 1946.

In addition to its reconstruction loans, the Bank continues to finance the foreign trade of the United States in two other principal ways. It finances specific export and import transactions on application of United States exporters and importers, where the nature of the risk involved is such that private credit cannot be obtained. It also makes long-term loans to assist in financing the export of United States materials and equipment required for development projects in foreign countries.

AUGUST MAFFRY.

EXTENSION SERVICE. An agency of the War Food Administration, United States Department of Agriculture, established under the Agricultural Appropriation Act of 1924. Its functions are educational. An administrative and subject matter staff headed by a State director of extension work is located at each land-grant college, and county extension agents are located in nearly all the agricultural counties. These county extension agents make available to farmers, farm homemakers, and rural youth the results of research conducted by the Department of Agriculture, the land-grant institutions, and other research agencies, adapted to local farm and home conditions.

On June 29, 1945, when the War Food Administration was discontinued, the Extension Service reverted to its previous role of staff agency, continuing in its responsibility for all general educational programs of the Department.

Director of Extension Work: M. L. Wilson.

FAEROES. A group of 21 islands (the chief being Bordö, Kalsö, Österö, Sandö, Strömo, Sudero, Vaagö, and Viderö) north of Scotland, forming a county of Denmark. The islands were under British military control from April 10, 1940, until August, 1945. Total area, 540 square miles. Population (1935 census), 25,744. Capital, Thorshavn (on Stromo), 3,611 inhabitants. The chief exports are fish, whale oil, woolen goods, lambskins, and feathers. The islands are administered by a Danish governor and the local parliament (Lagting). The election held in the Faeroes, according to a report of Nov. 7, 1945, resulted in a victory for the pro-government coalition, which desired union with Denmark. On September 14, 1946, another election decided that the islands would sever their ties to Denmark and on September 18, Thorstein Peterson, chairman of the Faeroe Lagting, declared the islands independent. Sudero, third largest island of the group, declared it would continue to maintain its union with Denmark.

FAIR EMPLOYMENT PRACTICE. Committee on. Originally a Committee established by executive order within the Office of Production Management (see YEAR BOOK for 1941) on June 25, 1941, and transferred to the War Manpower Commission on July 30, 1942. This Committee ceased to exist upon the establishment of a new Committee on Fair Employment Practice within the Office for Emergency Management on May 27, 1943. On May 18, 1946, the Committee was placed in liquidation by a Presidential letter.

The purpose of the Committee was to promote the fullest utilization of all available manpower and to eliminate discriminatory employment practices. Executive Order 9346, by which it was established, provided that all agencies of the U.S. Government include in all contracts a provision obligating the contractor not to discriminate against any employee or applicant because of race, creed, color, or national origin. Federal agencies concerned with training for war production were required to assure that such programs are administered without discrimination. The Committee was empowered to receive and investigate complaints of discrimination, to conduct hearings, make finding of fact, and take appropriate steps to obtain elimination of such discrimination.

FALK FOUNDATION, The Maurice and Laura. A Foundation which concentrates its funds in support of economic research through grants to research organizations for investigations of specific problems affecting the development of American industry, trade, and finance. During 1946 payments approximating $264,658 were made. New grants of $349,283.00 were voted in 1946. Research investigations completed during 1946 resulted in the publication by the Brookings Institution of Washington, D.C. of *Relief and Social Security, Depreciation Policy and Postwar Expansion,* and *Regulation of the Security Markets;* by the National Bureau of Economic Research, Inc., New York, New York of *Domestic Servants in the United States.* The Foundation was established by Mr. Maurice Falk in 1929 with the provision that principal as well as income must be used within 35 years for such efforts to advance the general welfare as the Foundation's Board of Managers might select. Executive Director: J. Steele Gow. Chairman of the Board of Managers: Leon Falk, Jr. Offices: 1911 Farmers Bank Building, Pittsburgh 22, Pennsylvania.

FALKLAND ISLANDS. A British crown colony in the South Atlantic, 300 miles east of the Magellan Strait. The colony consists of two large islands, East Falkland and West Falkland, and a number of small adjacent islands. Total area: 4,618 square miles. Population (1943 estimate): 2,444. Capital: Stanley (1,246) on East Falkland. The colony is administered by a Governor, assisted by an executive council and a legislative council. Education, which is compulsory, is carried on by government and Falkland Islands Company schools and by means of travelling teachers associated with the two systems.

The chief occupation of the people is sheep farming, and wool is an important export. It was exceeded in value in 1941, however, by whale produce, representing the activity of the small population of a number of dependent islands, including South Georgia, South Shetlands, South Orkneys, South Sandwich Islands and Graham Land.

FARM CREDIT ADMINISTRATION (FCA). An agency of the U.S. Department of Agriculture (q.v.), established under authority of the Farm Loan Act of 1916 and subsequent acts, to provide a complete and coordinated credit system for agriculture. It makes long-term and short-term credit available to farmers and also provides credit facilities for farmers' cooperative marketing, purchasing, and business service organizations.

The United States is divided into 12 farm credit districts. In one city in each district are a Federal land bank, a Federal intermediate credit bank, a production credit corporation, and a bank for cooperatives. Activities of the four institutions in a district are coordinated through a farm credit board and an executive called the general agent, who acts as joint officer for the four units.

Federal land bank loans are long-term, amortized loans of $100 to $50,000 made to farmers who give as security first mortgages upon their farms. Corporations engaged in raising livestock are also eligible to borrow, under certain limitations. The rate of interest for most new loans is 4 per cent. Land bank commissioner loans up to $7,500 may be made for the same purposes as land bank loans and also to refinance indebtedness. The contract rate of interest is 5 per cent. The 12 Federal intermediate credit banks make loans to, and discount paper for, production credit associations, the banks for cooperatives, State and national banks, agricultural credit corporations, livestock loan companies, and similar financing institutions. The 12 production credit associations provide credit for all types of farm and ranch operations, the loans being made and collected by local associations. The central and 12 district banks for cooperatives make loans to farmers' cooperative associations; loans are of three types—commodity at 1.5 percent interest; operating capital, 2.5 percent; facility, 3.5 percent.

Emergency crop and feed loans of from $10 to $400 in one year are made to applicants who are unable to procure adequate loans from other sources. Regional Agricultural Credit Corporations were organized to provide emergency short-term credit in 1932–33; during 1943 RACC loans were made to finance the production of essential wartime food and fiber, and in 1944 and 1945 loans were authorized in certain regions on all crops and in some regions on specified crops, as designated by the Secretary of Agriculture.

The FCA maintains a Cooperative Research and Service Division, and it also works with other government agencies in meeting postwar problems. Governor in 1946: I. W. Duggan.

FARM SECURITY ADMINISTRATION (FSA). An agency of the U.S. Department of Agriculture, established as the Resettlement Administration in 1935. It has made loans to nearly one million farm families for the purchase of machinery, equipment, livestock, seed, fertilizer, and other supplies. Since the war loans (up to five years at 5 per cent) have been made primarily to increase the production of essential food and fiber. The loans are accompanied by technical guidance from county supervisors. The FSA also aids in the group purchase of machinery and purebred sires and in the setting up of county-wide group health services. Under the Farm Tenant Act of 1937, loans are made for the purchase of family-type farms, $248,750,000 having been authorized for this purpose up to June 30, 1945. The migratory labor camps originally established by FSA have been turned over to the War Food Administration for the use of seasonal workers, and the resettlement projects are being liquidated by sale of the units to residents.

On instructions from Congress, the agency began liquidation of its 152 rural resettlement projects. By December 31, 1945, 1,014,900 acres out of the 1,865,000 acres of land involved had been sold.

The functions of this administration were merged into the Farmers Home Administration on Nov. 1, 1946.

FEDERAL BUREAU OF INVESTIGATION (FBI). This Bureau, which serves as the investigative arm of the United States Department of Justice, was established in 1908 by Attorney General Charles J. Bonaparte. Originally known as the Bureau of Investigation, on July 1, 1935, by Congressional enactment, the name Federal Bureau of Investigation was adopted. The present Director of the FBI was appointed in December, 1924, by the late Harlan Fiske Stone, then Attorney General, and has been reappointed by each succeeding Department of Justice head.

The jurisdiction of the Federal Bureau of Investigation extends generally to all federal crimes not specifically assigned to another agency of the Federal Government. Specifically, it is charged with the duty of investigating violations of the laws of the United States, collecting evidence in cases in which the United States is or may be a party in interest, and performing other duties imposed upon it by law.

The headquarters of the FBI is located in the Department of Justice Building in Washington, D.C. Field offices are located in strategic cities throughout the United States and its Territorial Possessions. In addition to the administrative offices it maintains in Washington its Identification Division, the FBI Laboratory, the FBI National Academy and the Uniform Crime Reporting facilities.

The Identification Division serves as a repository for identification data and today maintains the largest collection of fingerprint records in the world. Established in 1924 with a nucleus of 810,188 sets of fingerprints, the Division as of November, 1946, contained more than 103,000,000 sets. The number of fingerprints received in the Division increased from 87,918 in the fiscal year 1924 to 26,776,184 in the peak year of 1943. A total of 5,216,633 sets of fingerprints were received from 12,455 contributors during the 1946 fiscal year. Seventy-six foreign countries, Territories and Possessions of the United States cooperated in the International Exchange of fingerprint data during the 1946 fiscal year. At the end of that year the Division had notations in its files indicating that 90,175 fugitives were "wanted" by law enforcement agencies.

The FBI Laboratory, established on November 24, 1932, with one technician and a single microscope, now utilizes precision equipment valued at more than one million dollars and employs technicians schooled in 88 branches of science or its subdivisions. The FBI Laboratory serves as a scientific aid in crime detection, its facilities being available without charge to duly constituted law enforcement agencies which may submit evidence to it for scientific examination and analysis. Research is conducted to further aid law enforcement. With the cessation of hostilities, much of the Laboratory's work in the mass testing and confidential analysis category ended. Techniques developed and perfected in connection with wartime work are presently being adapted to the examination of an increased number of submissions of evidence in criminal cases. During the 1946 fiscal year 67,229 examinations were conducted involving 104,780 specimens of evidence.

The FBI National Academy, founded in July, 1935, is concerned primarily with the training of police instructors and administrators. Applicants for attendance are carefully selected from local, county and state law enforcement agencies. The course of instruction consists of various phases of law enforcement with special emphasis placed on methods of teaching, and organization of police schools within their own departments. Among the graduates of the Academy are representatives from every state in the Union, from some of the United States Territorial Possessions, and from several foreign countries. To date, 1,470 selected officers have graduated from this school. The FBI National Academy is approved as an educational institution where veterans can study under the G.I. Bill of Rights.

In its Uniform Crime Reporting project the FBI, at the request of the International Association of Chiefs of Police and pursuant to an Act of Congress, acts as a central clearinghouse for police statistics on a nationwide basis. Monthly and annual crime reports forwarded to the FBI reflecting information as to the number of persons arrested, the number found guilty, and related crime data, are summarized and published in the *Uniform Crime Reports* bulletin. The bulletin, which is published semi-annually, also contains information concerning the age, sex, race and previous criminal history of persons arrested throughout the United States as reflected by the fingerprint cards received in the Identification Division.

Wartime Duties. In September, 1939, the President designated the FBI as the clearing house for all matters concerning national security. This Presidential Directive placed the responsibility for handling matters pertaining to espionage, counterespionage, sabotage, subversive activities, and violations of the neutrality laws under the jurisdiction of the FBI. In December, 1941, and July, 1942, by Presidential Proclamation the Bureau was made responsible for the apprehension of alien enemies in continental United States, Puerto Rico and the Virgin Islands.

Internal Security Matters. Although the war with Japan was ended within 45 days after July 1, 1945, the beginning of the 1946 fiscal year, a total of 410 foreign nationals were deported during the 1946 fiscal year on the basis of FBI investigations. Closely connected with this program is the denaturalization of naturalized citizens of enemy countries who often used their citizenship as a cloak for subversive activities. Between July 20, 1942, and June 30, 1946, 191 persons were denaturalized in cases investigated by the FBI. Action against six of these took place in the 1946 fiscal year. With the termination of the war, all investigations under the sedition statutes were ordered discontinued except in cases where prosecution had begun. From Pearl Harbor to June 30, 1946, there were 41 convictions in sedition cases with total sentences of 197 years and 1 day and $23,250 in fines. There were no convictions during the 1946 fiscal year for sedition but in the espionage category there were three convictions of Axis agents. Sentences in these cases totaled 21 years and 11 months. Savings and recoveries were $3,650,157. Under Public Law 47, providing for punishment for anyone aiding and assisting escaped prisoners of war, there were 18 convictions with sentences totaling more than 41 years. A total of 825 prisoners of war were apprehended during the year.

During the 1946 fiscal year prosecutions under the Selective Training and Service Act resulted in 1,809 convictions with sentences totaling 3,726 years, 9 months and 15 days. Fines, savings and recoveries amounted to $75,110. Between October 16, 1940, the date of the first registration, and June 30, 1946, the FBI closed 563,703 cases under the Act.

Reports of suspected acts of sabotage declined markedly after the end of the war. During the 1946 fiscal year, however, the FBI received 258 such reports which, after investigation and prosecution, resulted in 12 convictions with sentences of 53 years, 5 months and 12 days. Investigation determined that those responsible for damaging war materials, equipment and machinery were motivated by a desire for revenge, or became angry or jealous. It was this rather than a deliberate and planned activity to obstruct the war effort which gave rise to the sabotage. To date, the FBI has uncovered no evidence that any act of sabotage was foreign directed.

General Criminal Investigations. Criminal activities throughout the nation continued during the war years and increased alarmingly after the cessation of hostilities in World War II.

All 13 kidnapings over which the FBI had jurisdiction during the fiscal year ending June 30, 1946, were solved. There were no demands for ransom. Sentences of 207 years, and one life term, resulted from the 19 convictions in this category during the year. The Federal Kidnaping Statute was passed on June 22, 1932. Since that date and through June 30, 1946, there have been 292 kidnapings investigated by the FBI. Of this number 290 have been solved and the remaining two are still under active investigation.

Forty-five life terms, 14 death sentences and terms totaling 6,701 years, 9 months and 9 days have resulted from the 603 kidnaping convictions in State and Federal courts since the passage of the Act. Eight kidnapers were killed while resisting arrest, 7 were murdered by their cohorts, 9 committed suicide, 2 were lynched and one was found to be insane.

Extortion, closely related to kidnaping in that it is a crime against the person, showed a definite increase during the past fiscal year. This violation involves the mailing of threatening letters coupled with a demand for money. Eighty convictions resulted from prosecutions with sentences totaling 261 years and 27 days Fines in the amount of $12,250 were levied and 16 fugitives were located. Eleven hundred eleven convictions have resulted from cases investigated by the FBI in this category since the passage of the Federal Extortion Statute in 1932. Total sentences of 4,501 years, 9 months and 11 days have been imposed. Four of the subjects responsible for the commission of these crimes were killed while resisting arrest, 3 committed suicide and 42 were found to be insane.

In the general category of statutes relating to the theft, embezzlement or illegal possession of government property, there was a decided decline from 1,815 convictions in the 1945 fiscal year to 1,472 convictions in the 1946 fiscal year. Sentences totaling 2,170 years, 2 months and 18 days were meted out. Fines, savings and recoveries were $664,762 and 122 fugitives were located.

The termination of the war brought with it the necessity for disposing of a vast quantity of government surplus property. This disposal gave rise to an ever-increasing number of complaints of fraud against the government. Prosecutions during the 1946 fiscal year resulted in 314 convictions with sentences of 419 years, 6 months and 14 days. The fines, savings and recoveries of $9,411,402 exceeded by 2½ times the money involved the previous fiscal year. Bribery convictions also increased. The control of prices, necessity for securing priorities for scarce material and war surplus disposal controls contributed to the material increase from 29 to 41 convictions. Sentences totaled 93 years and 15 days. Fines of $33,341 were asessed and a recovery of $1,270 effected.

A sharp increase was noted during the fiscal year in the number of Election Law violations. Convictions in this category increased during the 1946 fiscal year from a previous 26 to 45 with sentences totaling 78 years, 1 month and 12 days, and fines of $4,500. This violation extends not only to preventing a person from voting, but also to stuffing ballot boxes, counting votes not cast, and other Congressional election frauds.

National Motor Vehicle Theft Act. The 79th Con-

gress amended the Act in September, 1945, to include aircraft within its provisions. During the 1946 fiscal year there were 3,614 convictions for violations of this statute as compared with 2,418 in the fiscal year 1945 and 2,282 in the fiscal year 1941.

Eleven thousand four hundred fifty-eight automobiles were recovered during the year in cases investigated by the FBI, an increase of 3,566 and 6,787, respectively, over the recoveries in the 1945 and 1941 fiscal years. The convictions for the fiscal year 1946 resulted in sentences of 10,853 years, 4 months and 27 days. Fines, savings, and recoveries amounted to $9,261,912 and 1,100 fugitives were located.

From the passage of the Act to June 30, 1946, 98,088 vehicles having a total value of $61,249,030 were recovered in cases investigated by the FBI.

Federal Bank Robbery Act. During the 1946 fiscal year convictions under this Act totaled 53. FBI-investigated cases were resolved with sentences totaling 377 years, 8 months and 1 day. Fines, savings, and recoveries amounted to $214,312, and 27 fugitives were located. During the year there were 57 bank robberies, 102 bank burglaries and 22 bank larcenies committed. Of the 53 convictions 24 were for robbery, 21 for burglary and 8 for larceny-theft.

Since the enactment of the Federal Bank Robbery Act on May 18, 1934, a total of 1,108 bank robberies have been investigated by the FBI. These have resulted in 772 convictions with sentences totaling 12,156 years and 10 months. In addition, there have been 2 death sentences and 14 life terms.

Miscellaneous Violations. Definite increases were recorded in convictions for violations involving Crimes on the High Seas (from 176 convictions in the 1945 fiscal year to 338 in the 1946 fiscal year,) Involuntary Servitude and Slavery, Antitrust and Antiracketeering Laws, Servicemen's Dependents Allowance Act of 1942, and National Cattle Theft Act. Among the other Federal criminal statutes over which the FBI has investigative jurisdiction are the White Slave Traffic Act, National Stolen Property Act, May Act, Federal Reserve Act, and War Labor Disputes Act.

Over-all Statistics. During the fiscal year 1946 there were 11,873 convictions in cases investigated by the FBI. These resulted in sentences of 26,624 years, 6 months, 13 days and, in addition, 5 life terms. Fines, savings and recoveries for the year reached a total of $68,484,935. There were 10,990 fugitives located and 11,458 automobiles recovered in FBI cases. Convictions resulted in 97.3 percent of the cases brought to trial.

J. EDGAR HOOVER.

FEDERAL COMMUNICATIONS COMMISSION. Removal of wartime restrictions unleashed an unprecedented demand for new or augmented radio services. This demand has taxed the Federal Communications Commission, whose funds and personnel were keyed to prewar regulation of interstate and foreign radio and wire communication.

Program broadcasting has received the greatest share of public attention because it enters the home. The application of radio to other services, affecting business and industry; and protection of life and property on land, sea, and in the air, however, have equally important implications.

The fact that the radio spectrum has been extended from its prewar "top" of 300 megacycles to 30,000 megacycles has made room for many new services and widens the horizon for further developments.

Broadcasting. There are now various recognized types of program broadcast service for which more than 1,200 stations are licensed. About 1,000 others have been given initial authorization to operate, with more than 1,200 additional applications on file.

Standard Broadcast. This oldest of program broadcast systems, which uses AM (amplitude modulation), saw its 1,000th station licensed in late August of 1946. At the close of the year there were more than 500 construction permits and more than 600 pending applications.

The new stations, it is hoped, will relieve a situation revealed in the hearing on "clear channel" (wide coverage) stations which indicated that some 38 percent of the country, with more than ten million people, was receiving no satisfactory daytime broadcast service and 57 percent of the nation, with twenty-one million people, was getting no nighttime primary service.

In 1946, as a result of a survey of broadcast programs to the inclusion of advertising, the Commission concluded: "Primary responsibility for the American system of broadcasting rests with the license of broadcast stations, including the network organizations. It is to the stations and the networks, rather than to federal regulation, that listeners must primarily turn for improved standards of broadcast service." However, the Commission pointed out that it has a statutory responsibility to consider overall program service in its public interest determinations. Consequently, in issuing and renewing licenses it is giving particular consideration to four program service factors, namely: (1) sustaining programs, with particular reference to licensees retaining a proper discretion and responsibility for maintaining a well-balanced program structure; (2) local live programs; (3) discussion of public issues, and (4) elimination of advertising excesses. Such a review of overall performance of stations in the light of promises made in their original applications is being carried out in the cases of all commercial standard, FM and television broadcasters.

Frequency Modulation (FM). The 48 licensed FM stations in operation at the close of the war were augmented by 17 new stations, and more than 400 others, which had obtained construction permits, were due to come on the air as quickly as materials became available. More than 200 other applicants were being considered.

When FM broadcast made its debut on a commercial basis in 1941, it continued to use the 42 to 50 megacycle band. But interference developed and, as a result of hearings, it was assigned a higher and better position in the spectrum. "Public interest," explained the Commission, "requires that FM be established in a permanent place before a considerable investment is made by the listening public in receiving sets, and by broadcasters in transmitting equipment." Consequently, this new service was to move to 84–102 megacycles by the start of 1947.

Television. Construction of some fifty new commercial television stations was authorized in 1946. These, together with the 6 stations on the air at the beginning of that year and the many new applicants, should give an impetus to visual broadcast in the new year.

Since television developed on six-megacycle-wide channels, it continues to occupy its present spectrum space, where 13 channels between 44 and 216 megacycles are allocated for commercial television plus space in the 480–920 megacycle band for experimentation in connection with the

development of color pictures. About 60 television stations are in experimental operation.

Television reception now extends far from sight of the antenna originating the transmissions. This is due to extension of coaxial cable. Completion of the New York–Washington section of that system permitted network handling of special programs in 1946. New radio-relay devices are also likely to carry programs far from their place of origin. There is possibility too, that television, as well as facsimile, may ultimately be linked with telephony.

International Broadcast. Thirty-seven stations in this country continue to transmit programs overseas. Though licensed by the Commission, they are supervised by the Department of State, which assumed that function during the war.

Noncommercial Educational Broadcasts. Twenty FM channels are reserved for this type of service by educational institutions. In addition to 6 licensed stations, construction of 20 more was authorized, and that many more applications were pending.

Developmental Broadcast. As its name implies, this class of station operates in the interest of developing new, and improving old, services and techniques. Forty such stations are either on the air or under construction.

Relay Broadcast. To carry programs from pickup points to studios, nearly 600 relay stations are operating in the high and low frequencies.

Facsimile. Facsimile is still in the experimental stage, but three stations are active in the development of a new and economic means of speeding writing and printed matter, as well as pictures, through space.

Amateurs. Relinquishment of frequencies by the military have permitted amateurs to regain practically all their prewar band, with additions. The number of self-styled "hams" now approaches 90,000. In 1946 the license period for amateurs was extended to three years. Their call letters are now prefixed with K or W.

Aircraft and Ships. Protection of life and property in the air and on the sea is aided by 10,600 radio-equipped aircraft and air stations, and about 9,500 ship stations.

Emergency Services. Police, Fire, and Forestry radio stations total more than 3,700, most of them being police communications systems. There are nearly 700 other classes of emergency stations.

New Radio Services. Railroad safety is furthered by new train communications, with more than 100 authorizations; and 1946 saw the establishment of a service for 40 electric, gas, water and gasoline pipeline companies.

Experimental. Preliminary to being established on a regular basis, an experimental mobile service is determining the value of radio in dispatching and controlling the movement of buses, taxicabs, delivery and repair trucks, ambulances, etc., also river craft. At the same time, telephone companies are testing mobile equipment in many cities with a view to linking radio with telephone facilities so that passengers on trains, vehicles, planes, and boats may put in and receive paid calls. Authorizations of this nature, which total 2,000, cover many mobile units. Another proposed new service would accommodate the use of "walkie talkies" and other portable two-way radios by individuals at home, work or play.

Telephone. Periodic reductions in toll rates aggregate $130,000,000 annually. Interstate toll rates are now uniform. Though more than 32 million telephones are in use, three out of every five farm homes remain without telephone service. However, radiotelephone transmission is being utilized to reach isolated communities where it is uneconomic or impracticable to extend wire lines. In 1946 the Commission proposed that recording devices be sanctioned as regular telephone equipment under conditions assuring knowledge that such appliances were employed. Thirteen public point-to-point radiotelephone stations have resumed service to some 50 foreign places.

Telegraph. Faced with increasing radio, telephone, and airmail competition, the Western Union Telegraph Company was in 1946 granted a general 20 percent rate increase pending Commission study of the present and future situation of this oldest form of electrical communication. Meanwhile, the unified telegraph system is modernizing by installing FM radio-beamed channels between busy centers and converting from manual to mechanical aids at important points. About 70 foreign points are now connected with this country by radiotelegraph circuits.

Cables. American cable mileage (about 120,000 miles) remained practically unchanged for years. The United States controls about 32 percent of the world's cables; Great Britain about 58 percent.

Ether Policing. In 1945 the Foreign Broadcast Intelligence Service, which monitored foreign broadcasts during the war, was transferred to the War Department. However, the Commission's Radio Intelligence Division continues to police the ether for illegal transmissions and to see that licensed transmissions keep to their assigned frequencies.

T. J. SLOWIE.

FEDERAL COUNCIL OF THE CHURCHES OF CHRIST IN AMERICA. An organization established in 1908 by 28 Protestant denominations to act for them in matters of common interest. The Council now includes most of the major Protestant denominations of the United States and also three branches of the Eastern Orthodox family.

During the past year the Council has given special attention to problems of world order. In August an international conference of Church Leaders was held in Cambridge, England.

The General Secretary, Dr. Samuel McCrea Cavert, spent the first part of the year in Geneva, Switzerland, in connection with the future plans of the World Council. Later he returned to Europe to serve in a liaison capacity between the German Church and the American Army of Occupation.

In March a special meeting was held in Columbus, Ohio, to formulate policies and programs for the post war world. Five hundred denominational representatives attended. Five major subjects were studied: The Churches and World Order; The Church and Race Relations; Veterans and the Church; Overseas Relief and Reconstruction; The Church and Economic Tensions, and Evangelism. The Council's program in these and related fields has since been strengthened. Five hundred seventy-eight religious radio programs were given on national networks. Sixteen interracial clinics were held in as many cities, together with interdenominational conferences on Family Life, Religion and Health, Christian Social Work, and Public Worship. A new department has been created to coordinate the efforts of denominations in securing young men for the ministry and through Church World Service efforts of American Churches have been channeled in relief and reconstruction for needy persons abroad.

The *Information Service* was published weekly as an analysis of social, international and interracial problems of special interest to the churches. The *Federal Council Bulletin* (monthly) is the of-

ficial organ of the Council. Other publications are: *Interracial News Letter* (bimonthly), *Town and Country Church and Postwar World.*

Officers: President: Bishop G. Bromley Oxnam. Vice President: Dr. Benjamin E. Mays. Treasurer: Harper Sibley. General Secretary: Rev. Samuel McCrea Cavert. National offices: 297 Fourth Avenue, New York 10, New York; also Woodward Building, Washington 5, D.C.

FEDERAL DEPOSIT INSURANCE CORPORATION (FDIC). An independent agency of the U.S. Government, organized under the Banking Act of 1933 to insure the deposits of all banks which are entitled to the benefits of insurance under the law. The major functions of the Corporation are to pay off the depositors of insured banks closed without adequate provision having been made to pay claims of their depositors, to act as receiver for all suspended national banks and for suspended State banks when appointed by State authorities, and to prevent the continuance or development of unsafe and unsound banking practices. The Corporation may also make loans to or purchase assets from the insured banks when such loans or purchases will facilitate a merger or consolidation and will reduce the probable loss to the Corporation.

The capital stock of the Corporation is as follows: (1) by the Treasury of the United States, $150,000,000; (2) by the Federal Reserve Banks, $139,299,556.99. On December 31, 1945, the surplus of the Corporation amounted to $639,852,000 and total capital account to $929,151,000. Of the 14,184 operating commercial banks and trust companies in the United States and possessions, deposits in 13,303 banks were insured by the Federal Deposit Insurance Corporation. Of the 542 mutual savings banks, 192 were insured by the Corporation.

Federal credit unions, cooperative associations organized in accordance with the Federal Credit Union Act, were transferred to the Federal Deposit Insurance Corporation Apr. 27, 1942. On December 31, 1945, there were 3,759 Federal credit unions in operation. Share balances in credit unions are not insured by the Corporation.

Chairman in 1946: Maple T. Harl.

FEDERAL POWER COMMISSION (FPC). An independent agency of the U.S. Government, first established in 1920, which has jurisdiction over water power projects on navigable streams or affecting interstate or foreign commerce, or upon public lands, and over the interstate movement of electric energy. It also regulates the transportation or sale of natural gas in interstate commerce under the Natural Gas Act. Chairman in 1946: Leland Olds.

FEDERAL RESERVE SYSTEM. An agency of the U.S. Government established in 1913 for more effective supervision of banking in the United States and for other purposes. The System comprises the Board of Governors; the Federal Open Market Committee; the 12 Federal Reserve Banks and their branches situated in different sections of the United States; the Federal Advisory Council; and the member banks, which include all national banks in the United States and such State banks and trust companies as have voluntarily applied to the Board of Governors for membership and have been admitted to the System. Chairman in 1946: Marriner S. Eccles.

FEDERAL SECURITY AGENCY (FSA). An agency of the U.S. Government which was established July 1, 1939, as a result of the reorganization Act passed by the Congress earlier in that year, to promote "social and economic security, educational opportunity, and the health of the citizens of the nation." It brings together Government agencies having related responsibilities in these broad fields. As the Agency is presently constituted, its component units are the Public Health Service, under which is Freedmen's Hospital; the Office of Education; the Social Security Administration (which also includes the Children's Bureau); the Food and Drug Administration; the Office of Vocational Rehabilitation; the Bureau of Employees' Compensation; and Saint Elizabeths Hospital. It also represents Federal participation in the work of Howard University, the Columbia Institution for the Deaf, and the American Printing House for the Blind. (See separate articles on the first five of the component agencies.) The affairs of the Federal Security Agency are under the direction and supervision of the Federal Security Administrator. He is assisted by the Assistant Administrator, who acts as Administrator in his absence, and by a staff of administrative, special, and technical assistants who aid in the activities and correlation of the various units of the Agency.

The cessation of hostilities, with victory for the United States and our allies in World War II late in 1945, had its effects on the work of the Federal Security Agency. Immediate steps were taken to conclude the several special programs that had been assigned to the Agency ancillary to the prosecution of the War. By June 30, 1946, most of these efforts had been brought to conclusion, and liquidation was nearing completion.

The Office of Community War Services, which had through the war years carried the heavy load in looking to the war-created needs for the provision of health, medical care, welfare, recreation, education, social protection, and related services, was the strong arm of the Government in the security field. It demonstrated, in the stress of war, the validity of integrated effort for health, education, and welfare. While a complete elimination of all overlapping or gaps in these services for war cannot be claimed, certainly this Office was of material aid in keeping the home front clear of chaos.

In October 1944, the Congress had provided for the disposition of war assets by enacting the Surplus Property Act (Public Law 456, 78th Cong.). By section 13 (a) of this act Congress extended to educational, health, and welfare institutions and organizations the opportunity to acquire a just portion of this property. The Surplus Property Administration (now the War Assets Administration) requested that the Federal Security Agency assist it in seeking to implement the will of Congress that surplus war property be disposed of to nonprofit institutions and instrumentalities at a value which would take into account benefits accruing to the United States from the use of such property by such agencies. To this end the Office of War Property Distribution, established in the Office of the Federal Security Administrator, cooperated with and acted as the agent of the War Assets Administration. Through facilities of the Public Health Service, the Office of Education, and the Social Security Board, procedures and policies were fostered to aid distribution of needed property to health, educational, and welfare agencies. In addition, this Agency was concerned with donations of excess property by the Army and Navy to educational institutions under statutes other than the Surplus Property Act. By the close of the fiscal year the mission of the Federal Security Agency in this field was nearing completion.

With increasing freedom from wartime functions it was possible to turn more adequate attention to the continuing job. Although the Federal Security Agency, as such, is a stranger in a world at peace, its establishment, just two months before Germany invaded Poland, was entirely coincidental with the ominous war situation. The basic idea of a closer integration of education, health, and welfare was neither new nor of partisan origin. Federal reorganization to this end had been successively sponsored by Presidents Harding, Coolidge, Hoover, and Franklin Roosevelt. Under President Harding the Joint Committee on the Reorganization of the Administrative Branch of the Government recommended the establishment of a "Department of Education and Welfare." This recommendation received strong support before the Sixty-eighth, Sixty-ninth, and Seventieth Congresses. Thereafter, President Hoover, on December 9, 1932, proposed to the Congress the establishment, in the Department of Interior, of a "Division of Education, Health, and Recreation" with an assistant secretary in charge. Under President Roosevelt the Committee on Administrative Management, on January 8, 1937, urged the establishment of a "Department of Social Welfare." This proposal, incorporated in a reorganization bill, passed the Senate and received very substantial support in the House. Thus the idea was not a new one when President Roosevelt, on April 25, 1939, proposed the establishment of the Federal Security Agency to a Congress which proved more receptive than had its predecessors.

During the past year, President Truman with victory in war complete and the problems of peace at hand, moved to strengthen the arm of the Federal Government for the better integration of services in the fields of education, health, and welfare. In presenting his Reorganization Plan No. 2 of 1946 to the Congress on May 16, 1946, President Truman said:

"To meet its full responsibilities in these fields, the Federal Government requires efficient machinery for the administration of its social programs. Until 1939 the agencies in charge of these activities were scattered in many parts of the Government. In that year President Roosevelt took the first great step toward effective organization in this area when he submitted Reorganization Plan I establishing the Federal Security Agency—'to promote social and economic security, educational opportunity, and the health of the citizens of the Nation.' . . .

"The reorganization plan here presented is a second important step in building a central agency for the administration of Federal activities primarily relating to the conservation and development of human resources; but, while this step is important in itself, I believe that a third step should soon be taken. The time is at hand when that agency should be converted into an executive department."

Not only did the Congress accept the Truman proposal for a strengthened Federal Security Agency, but the suggestion of departmental status was promptly followed by the introduction of a bill to this end with bipartisan sponsorship.

Other evidences of extensive interest in the security fields were in prominence during the second session of the Seventy-ninth Congress as it turned its thoughts from the waging of war to the better things of the dawning peace. During this session, there were under consideration several hundred bills seeking to improve the security program. In subject matter these bills were about equally divided between education, health, and welfare. Congressional committees held extensive hearings treating with these subjects, while President Truman in three messages focused the attention of Congress and the people on urgent, unmet needs. On September 6, 1945, less than a month after the fighting stopped, the President called for legislation on the broad front to implement and give substance to what Franklin Delano Roosevelt had called the "Economic Bill of Rights." This was followed by the historic Health Message of November 19, 1945. Again, in the "State of the Union Message" of January 21, 1946, the key importance of security needs was highlighted. Summarizing, the President said:

"Our basic objective—toward which all others lead—is to improve the welfare of the American people. In addition to economic prosperity, this means that we need social security in the fullest sense of the term; the people must be protected from the fear of want during old age, sickness, and unemployment. Opportunities for a good education and adequate medical care must be generally available."

The Congress was responsive in its concern for health, education, and welfare, and prior to *sine die* adjournment sent to the President four acts of far-reaching importance in these fields: (1) the National Mental Health Act (P.L. 487), (2) the Vocational Education Act of 1946 (P.L. 586), (3) the Social Security Act Amendments of 1946 (P.L. 719), and (4) the Hospital Survey and Construction Act (P.L. 725). While this legislative accomplishment fell somewhat short of the President's program, it was of substantial value, and above all, indicated a healthy concern as to the place of security services in our peacetime economy.

WATSON B. MILLER.

FEDERAL TRADE COMMISSION (FTC). An independent agency of the U.S. Government, established in 1914, which has the following threefold purpose: To promote free and fair competition in interstate trade in the interest of the public through prevention of price-fixing agreements, boycotts, combinations, and other unfair methods of competition and unfair and deceptive acts and practices; to safeguard life and health of the consuming public by preventing the dissemination of false and fraudulent advertisements of food, drugs, cosmetics, and devices which may be injurious to health; and to make available to the President, the Congress, and the public factual data concerning economic and business conditions as a basis for remedial legislation where needed, and for the guidance and protection of the public interest. Chairman in 1946: William A. Ayres.

FEDERAL WORKS AGENCY (FWA). An Agency of the U.S. Government comprising the five agencies which are concerned with the provision and financing of public works and services, namely, Public Works Administration, Public Buildings Administration, Public Roads Administration (qq.v.), Federal Fire Council, and Federal Real Estate Board. The functions of the Public Works Administration and the Work Projects Administration are now in process of liquidation in the Office of the Federal Works Administrator. Administrator in 1946: Maj. Gen. Philip B. Fleming.

FENCING. José de Capriles, who served as an officer in the Army Air Forces during the war, returned to the strips last year to capture the foils championship in the fifty-fifth annual national competition

at the Fencers Club in New York. Member of a famous fencing family, the Salle Santelli swordsman, who had won many honors in the sport but never the United States foils laurels, triumphed over eight rivals.

Another star, Albert Wolfe, French-born ace from Louisville, Kentucky, returned to action and won the épee crown while Dr. Tibor Nyilas, Salle Santelli, wrested the saber championship from Norman Armitage, Fencers Club, who had won the honors ten times. The three-weapon team prize was annexed by the New York A.C. combination of Dernell Every, foils; Henrique Santos, épee, and Dr. James Flynn, saber.

Miss Helene Mayer, San Francisco blond, also came back to tourney fencing and gained the United States women's foils laurels for the eighth time. Miss Barbara Weiss of New York University took the individual prize in the eighteenth annual women's intercollegiate tournament with the team title going to Hunter College.

THOMAS V. HANEY.

FERRO-ALLOYS. With requirements for ferro-alloys for steel making far below wartime levels, mining of such ferro-alloying minerals as occur in the United States took a sharp drop, and imports decreased correspondingly. For such metals as chrome and manganese, for which strenuous efforts had been made to develop domestic deposits during the war, dependence reverted almost wholly to cheaper foreign sources. A stockpiling act for critical minerals, passed by Congress in July, laid heavy emphasis on domestic sources; however, it gave only limited promise of future activity. In signing the Act, President Truman commented that its "Buy American" clause would increase costs of acquiring the stockpile, deplete "our inadequate underground reserves," possibly conflict with foreign economic policy, and might hamper the primary purpose of enlarging stocks of critical raw materials. Thus it appeared that "escape provisions" in the law, by which purchases could be made abroad, might be relied on heavily.

Chrome. With many special inducements offered during the war withdrawn, domestic chrome mining in the United States slipped back into the dormancy which had prevailed in all previous non-war years. Under the government purchasing program during the war domestic chromite producers received prices above Office of Price Administration ceilings, delivery points close to mines, and specifications less rigid than those of the open market. When the government buying program stopped, most domestic mines became uneconomic. Of the 339,721 short tons of chromite purchased by the government during the war period, only 19 percent was absorbed by industry, because of low quality, despite drastic shortages. United States mine production of chromite in 1946 was less than 3,600 tons (1945: 13,973 tons; 1944: 45,629 tons).

Imports during 1946 approximated 754,308 tons (1945: 914,765 tons). Cuba, Russia, Southern Rhodesia, and Turkey were principal sources. Mining in the Philippine Islands, which supplied about one-quarter of total United States imports in some prewar years, was slow in getting back on its feet. Domestic consumption was approximately 700,000 tons.

Ferro-chrome, produced from chromite ore, is added to alloy steels to increase hardenability, strength at high temperatures, and resistance to abrasion, corrosion, and oxidation. Many of these steels are popularly known as "stainless."

Manganese. Consumption of manganese ore (35 percent Mn) dropped to 1,200,000 short tons in 1946 from the wartime level of approximately 1,500,000 short tons (1945: 1,485,859 tons). About 90 percent of it continued to find its way into iron and steel making, either as ore or as alloys (ferromanganese, spiegeleisen, silicomanganese). The properties of manganese as a deoxidizer make it important in all steel production; also it imparts the quality of hardness to alloy steels. Dry cell batteries and chemicals account for less than 5 percent of the total consumed.

With free access to foreign sources, imports were heavy in 1946, amounting to about ten times the tonnage mined in the United States. About 1,500,000 tons of ore and concentrates (35 percent or more Mn) came from abroad (1945: 1,461,945 tons) compared to 153,000 tons (1945: 182,000 tons) produced by domestic mines. India and the Gold Coast each accounted for about one-fifth of the total imports, with slightly smaller amounts from Russia and South Africa, and some tonnage from Brazil, Cuba, Chile, French West Africa, and Mexico.

In the United States, ore was shipped from mines in Arkansas, California, Montana, Nevada, New Mexico, Virginia and Washington, with Montana the principal producer. United States ore reserves are conceded to be extensive, but most of the ore either is low in manganese content or presents complex processing problems, thus raising production expense.

The government, through the Office of Metals Reserve, maintains a strategic stockpile, which totalled about 1,000,000 tons on October 31, 1946. About 700,000 tons was in consumers and producers stocks on the same date, according to the U.S. Bureau of Mines.

Molybdenum. One of the few strategic minerals of which the United States was able to produce more than its own requirements during the war, molybdenum was mined at a far lower rate in 1946 to meet peacetime demands. Mine production in the United States was about 16,000,000 lb. in 1946 (1945: revised: 30,801,700 lb.; 1943: 61,666,800 lb.). Molybdenum occurs as the principal mineral in ore coming from three mines in the U.S., of which the Climax Mine, high in the Rocky Mountains of Colorado, is the largest. Climax accounted for about half of the total production. The balance of molybdenum production came as a by-product of the mining of such other metals as copper and tungsten in Utah, New Mexico, Arizona, Nevada and California.

Consumption of molybdenum follows closely the production pattern of alloy steels, which represent its dominant use. As an alloying element in steel, the use of molybdenum, which reached a peak during the war as a substitute for such scarcer alloys as tungsten, has increased greatly over prewar levels, and now is added in some amount to more than three-quarters of the alloyed engineering steels. It is particularly important in the heat and corrosion resistant steels and alloys used in such products as aircraft turbo-superchargers and gas turbines. Because of its high melting point (4748° F.), molybdenum also is used in minor amounts in crucibles, electronic tube parts, electrical contacts, thermocouple tubes, and electric furnace heating elements for high temperature work in a vacuum or protective atmosphere. Total consumption in the United States was 14,000,000 lb.

Strategic stocks of molybdenum concentrates, totalling about 4,500,000 lb. in Mo content, were held by the government late in the year.

Nickel. Development of deposits in Cuba and

Russia recently have cut from 90 percent to about 75 percent the portion of world production coming from the Sudbury, Ontario, district of Canada, but the Sudbury mines still supply the bulk of U.S. demand (See Table). It is estimated that 1946 production from Sudbury totalled about 200,000,000 lb. (1945: 246,000,000 lb.), a high peacetime mark.

Former Finnish deposits at Petsamo now are being developed by Russia. Mines in New Caledonia, which contributed to U.S. wartime needs, in 1946 diverted their entire output to France. Cuban deposits, developed under the sponsorship of the U.S. government during the war, continued to be operated by a private firm, and shipped nickel oxide to the steel industry.

Because of the increasing demand for stainless and other heat and corrosion resistant steels in which nickel is a principal alloy it was expected that demand would continue high in future years.

U.S. NICKEL IMPORTS, 1945–46
(In lb)

Source	*Form*	*1945*	*1946 (Jan–Sept.)*
Canada	Matte	34,753,404	30,233,517
	Refined Ni	118,479,626	101,571,387
	Total	153,233,030	131,804,904
Cuba	Nickel oxide	22,234,393	22,805,756
New Caledonia	Matte	11,353,451	0
	Nickel oxide	4,853,662	875,548
	Total	16,207,113	875,548
United Kingdom	Refined Ni	4,987,770	881,000

No nickel deposits of commercial grade are known in the United States, although the U.S. Bureau of Mines conducted exploration on low grade deposits on the Oregon coast during the year.

Tungsten. Consumption of tungsten in the United States dropped in 1946 to about 6,200 tons (60 percent WO_3 basis), one-fourth of wartime levels, with a corresponding drop in domestic production and imports. Domestic output was principally confined to a few mines in California and Nevada, and to the Salt Lake City treatment plant, which accounted for the bulk of the year's total, 4,000 tons in terms of 60 percent WO_3 concentrates (1945, revised: 5666 short tons). Two government sponsored milling and treatment plants, in Red House, Nevada, and Salt Lake City, respectively, ceased operations during the year. A portion of the huge Basic Magnesium, Inc., plant near Las Vegas, Nevada, was leased for the installation of a chemical treatment plant for tungsten ore.

About one-third of the total imports (1946: about 7,160 tons of 60 percent concentrates) came from Bolivia. Before the war, about 70 percent of world production was in Burma and China Burma had recovered sufficiently to produce only a trickle in 1946. Some concentrates also were imported from Southern Rhodesia, Argentina, Australia, Canada, Peru, Thailand, United Kingdom, Brazil, Spain, Belgian Congo, Portugal, Union of South Africa, and China.

Use of tungsten for electric lamp filaments is perhaps most widely known, but from the standpoint of quantity, far more goes into alloy steels. It is a principal alloying element in tool and die steels and in tungsten carbide tools, making it a key element in the working and forming of metals.

The United States government maintains a large strategic stockpile of tungsten ore and concentrates through the Office of Metals Reserve, the Treasury procurement division, and the Navy. The Office of Metals Reserve stockpile comprised 5,851 short tons of primary concentrates (60 percent WO_3 basis) on September 30, but stocks of the other government departments were not revealed.

Vanadium. Consumption of vanadium leveled off in 1946 after its sharp drop from the war peak of 7,262,634 pounds in 1943, with approximately 1,200,000 lb. going to industry. Consumption followed closely the production pattern of alloy steel output, which takes more than 95 percent of the total, with a sharp dip reflecting the steel strike early in the year. Some vanadium is used in nonferrous alloys and as a catalyst in the manufacture of aviation gasoline.

Imports, contained in ore, concentrates, and flue dust would amount to approximately 812,000 lb., it appeared late in the year. Peru was the sole foreign supplier of ore and concentrates, with the flue dust, resulting from the burning of petroleum containing vanadium compounds, from Curaçao.

Domestic mine production, more than 90 percent of it from Colorado and the balance from Utah and Arizona, dropped to 1,000,000 lb. of contained vanadium (1945: 2,963,913 lb.; 1943: 5,586,492 lb.)

A federal grand jury in June returned indictments against subsidiaries of the Union Carbide & Carbon Corp. and Vanadium Corp. of America charging a conspiracy which had brought about a monopoly in the mining and selling of vanadium and vanadium bearing ores in the United States.

CHARLES T. POST.

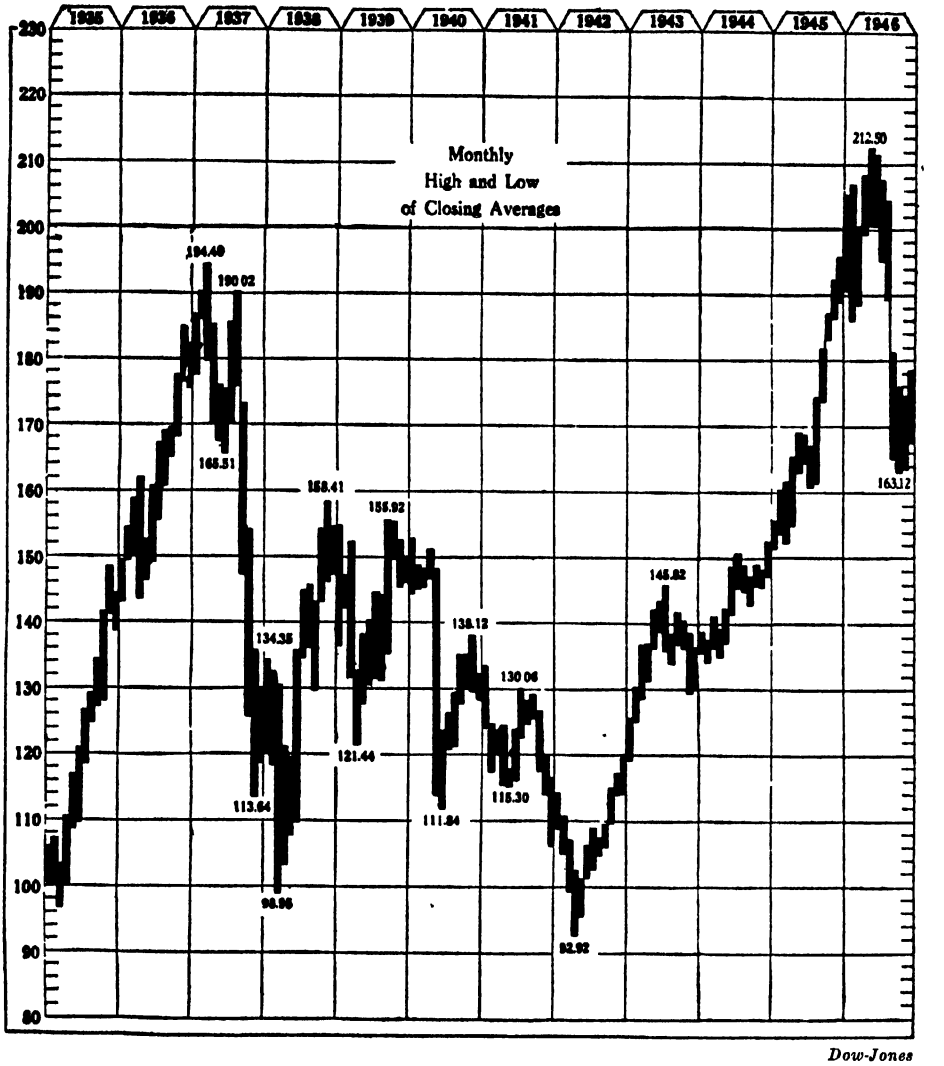
FIJI. A British colony in the South Pacific, due east of northern Australia, consisting of some 250 islands, about 80 of which are inhabited, and the dependent island of Rotuma. Area, including Rotuma: 7,083 square miles. Viti Levu, area 4,053 square miles, is the largest of the islands. Population, including Rotuma: 198,379 (1944 estimate). Capital: Suva.

A governor, assisted by an Executive Council, administers the colony. There is a Legislative Council with the Governor as president, with five European members, three of whom are elected; five Fijian members, chosen by the Governor from a panel presented by the Council of Chiefs, and five East Indian members, three of whom are elected. Self-government is maintained through the Council of Chiefs, each of whom represents and controls a district.

Bananas, coconuts, maize, sugar cane, rice, and tobacco are the principal products. Valuable woods are obtained in some of the southern islands. There are a number of factories processing the islands' products, but it is necessary to import clothing, tools and machines. Over a period, exports and imports tend to balance, with Australia, New Zealand, and the United States as the chief countries involved.

FILIPINO REHABILITATION COMMISSION. A Commission created by Act of Congress, approved June 29, 1944, to investigate and formulate recommendations on all matters affecting postwar economy, trade, finance, economic stability, and rehabilitation of the Philippine Islands, including the matter of damages to public and private property and to persons occasioned by enemy attack and occupation. United States Chairman, Millard E. Tydings.

FINANCIAL REVIEW. A severe break in stock prices in the latter part of August and early in September ended the four-year bull market in securities that began in April, 1942. Coming at a time when business activity was at its highest mark since V-J Day with commodity prices rising and corporate profits running at the best rate in history, the drop



INDUSTRIAL AVERAGE, 1935–1946

in stock prices took the public by surprise. However, there were a number of points of similarity between the fall in stock prices in the late summer of 1946 and that which took place in the spring of 1920, before business activity and commodity prices turned down in that year.

This decline in the stock market exerted a restraining effect at a time when inflationary pressure was apparent throughout the economy. It checked a boom in new stock flotations that developed earlier in the year, many of a highly speculative character, and also curtailed buying of high-priced luxuries and costly homes.

The Stock Market. The sharp rise in stock prices that began before V-J Day was continued, with minor interruptions, during the first five months of 1946. The Dow-Jones industrial average reached its peak on May 29, when it closed at 212.50, the highest reached since 1930. With the settlement of major labor disputes, there was widespread confidence that American business would enjoy a protracted period of prosperity, and that corporate profits would increase despite the higher level of wages. True, a number of industries were squeezed between rising costs and fixed selling prices, notably steel, automobile and electrical manufacturers, but it was anticipated that either wage ceilings would be lifted or price controls would be ended altogether. When the Price Control Act expired on June 30, the market rallied, but did not return to the May 29 level. Thereafter, it fluctuated irregularly until mid-August, when weakness developed and became pronounced late in the month. By early September, a wave of liquidation was under way and bids were marked down sharply between sales on many issues. Although it was believed that the non-durable goods industries would be most vulnerable, all groups participated in the decline, just as the preceding advance had been quite inclusive. While the market rallied several times during the final months of the year, liquidation made its appearance on each upturn and the industrial average fell back repeatedly to the low level of the September break. The trend was upward in December when moderate optimism revived over the outlook for the automobile and other heavy in-

dustries and a number of favorable dividend announcements appeared.

A striking feature of the sharp break in the stock market was the fact that it occurred at a time when margin trading was barred. The Board of Governors of the Federal Reserve System had lifted margin requirements under Regulation T and Regulation U to 100 percent on January 21, so that

TABLE 1—PRICES OF ACTIVE STOCKS, 1946

Stock	*High*	*Low*	*Close*	*Net Change*
Alleghany Corp.	8¼	3⅝	3⅞	−1⅝
Amer. Airlines	19⅞	9	9⅝	
Amer. & For Power	14¼	5¼	6	−1¼
Amer. Power & Light	22½	10⅜	13½	+2⅜
Am Rad & St. S	23	12⅞	16	−2¼
Am. Roll. Mill	42⅝	27¼	36⅝	+7⅝
Am Tel & Tel	200¼	159⅜	171¼	−19½
Am Wat Wks.	28⅜	13⅝	17¼	−7¼
Am Woolen	70⅞	29½	33⅜	+2¼
Anaconda Copper	51⅞	35	40⅝	−4⅝
Armour & Co.	18¾	10¼	14¼	+1
Aviation Corp.	14⅜	6⅜	5¼	−3¼
Balt & Ohio	30¼	11	15⅛	−10⅞
Callahan Z-Lead	7⅛	3	3¼	−⅛
Canad Pacific	22⅞	11⅜	12⅝	−7⅝
Certain-teed Prod	25⅞	14⅜	20⅞	+5⅞
Chi M SP. & Pac	38½	11½	12¾	−18⅜
Chrysler Corp.	141	75¼	91¼	−39⅜
Col Fuel & Ir	23⅜	10¼	14⅝	−2⅜
Colum Gas & El.	14	8⅜	11¼	+1½
Com'wlth & So	5⅞	2⅜	4	+1
Cons Edison	36	24¾	27⅛	−5⅞
Cont Motors	24	10	10⅛	−8½
Curtis Publishg	26	10	10¼	−11⅛
Curtiss-Wright	12⅛	5⅝	5⅞	−2
El Power & Lt.	29½	13⅝	18¼	+¼
Erie R R	23⅛	9½	11⅛	−6½
Gen. Elec	52	33½	35⅞	−11⅞
Gen Motors	80⅝	47¼	52½	−23
Gen Pub Util	23¾	14⅛	16	
Graham-Paige Mot	16	5⅛	5⅛	−5½
Int Nick Can	42⅞	28⅛	35½	−2
Int Paper	55½	38½	53½	+5¼
Int Tel & Tel	31⅞	14¼	16⅛	−12½
Jones & L Stl.	53⅞	31⅝	34⅝	−7
Laclede Gas	9⅝	5⅜	6¼	−⅝
Montgom Ward	104¼	57¼	60⅛	−12¼
Nash-Kelvinator	25⅝	13	14¼	−8⅝
Nat Distillers	32⅝	19⅞	22	
N Y Central R R	35¼	13⅞	18⅛	−15¼
North Amer Co	39¾	23⅜	31½	+2
Northern Pacific	36	16⅝	20½	−15
Ohio Oil	29⅝	19⅝	23⅞	+2
Packard Motor	12⅜	5⅜	6⅝	−4½
Pan Am Airways	27	11½	12¼	−13⅛
Param Pictures	39⅝	27¼	32½	
Penn R R.	47½	25	25¼	−16⅜
Pepsi-Cola	40½	21½	26	−9¼
Philip Morris	71	33¼	36⅝	−28⅝
Radio Corp.	19	9	9¼	−8½
Radio-K-Orph.	28⅛	15⅛	15½	−⅞
Republic Steel	40⅞	24⅞	27⅞	−2½
Schenley Distill	100	53	55¼	
Sears Roebuck	49⅝	35¼	38⅞	+2⅝
Sinclair Oil	20¾	15	15⅝	−3¼
Socony-Vacuum	18¼	13¼	14⅜	−2½
Southern Pacific	70	38¼	45⅝	−13⅝
Spiegel Inc.	39⅞	14⅛	15⅝	−6½
Std G. & E $4 pf	60⅝	20⅛	36⅝	+3⅞
Stand Oil N J.	78¾	51⅝	69¼	+2½
Studebaker Corp.	38½	18⅛	20⅞	−10¼
Sunray Oil	14	7⅝	8	−⅝
Tri-Cont Corp.	12⅝	5⅞	7⅛	−2⅝
Twent C-Fox	63⅞	37⅛	38	−3¼
Un. Cig-Wh Strs.	17¼	6⅝	7⅝	−4
United Corp	7⅛	3¼	3¼	−⅞
Unit-Rex Drug	18⅞	9½	11¼	
U S Steel	97⅝	65⅛	71⅞	−9⅝
Westing Elec	39⅞	21⅛	24⅞	−10⅝
Willys-Overland	26⅞	9	9⅞	−11⅝

new security purchases thereafter required full cash payment. However, customers did not have to pay off balances due brokers and banks in margin accounts or security loans previously incurred, unless they wished to withdraw securities or cash. The selling in the August-September break was thus deliberate and not forced by impairment of margin accounts, as was so common in the past. Generally speaking, owners of securities did not have to sell, but chose to do so because of uneasiness over the longer-term business and profits outlook. There was a certain amount of borrowing from banks on security collateral, particularly in connection with arbitrage transactions, but forced liquidation from this source did not reach any considerable volume. While impairment of margin accounts in the past had given rise to forced selling that accelerated and intensified price declines, at the bottom of the 1946 recession it was argued that the 100 percent margin requirement curtailed support buying and so hampered rallying tendencies. However, the Board of Governors of the Federal Reserve System took the position that the inflation threat remained severe, and that no relaxation of margin requirements was justified at the time

The turnover on the New York Stock Exchange aggregated 363,709,312 shares during the year, or slightly less than the 377,563,575 shares traded in 1945. The largest daily turnover was 3,624,010 shares on September 4, when the stock market break was in full swing. The year was the first since 1941 in which stock prices declined for the year as a whole

The high, low, and closing prices of leading issues listed on the New York Stock Exchange are shown in Table 1.

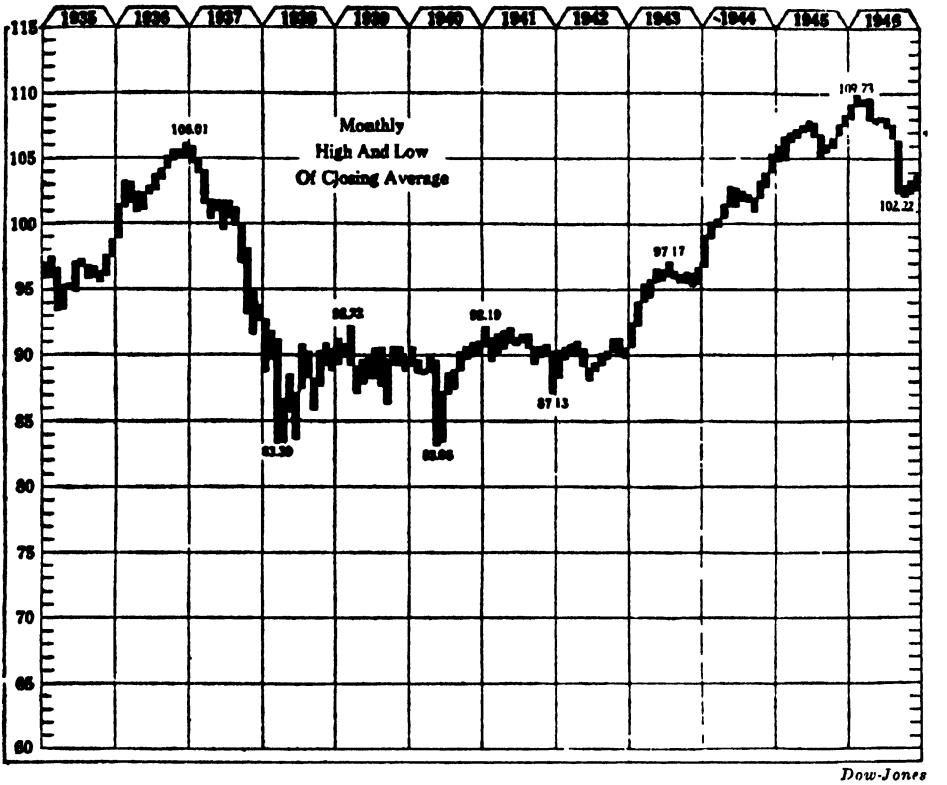
The Bond Market. The long bull market in bonds that began in the summer of 1940 culminated during 1946. In the early months of the year, bond prices advanced with the stock market. Prices of Government obligations in particular turned very strong when institutional buyers felt that the Treasury would not put out another long-term issue following the Victory loan, so that they would have to acquire additional bonds for their needs by bidding for them in the open market. The huge Victory 2½ percent issue of 1972, the largest single bond issue ever sold, soared to a premium of more than six points in April, carrying prices of gilt-edge bonds and preferred stocks up with it. A break of several points in quotations of long-term Government bonds in May marked the turning point, and prices of high-grade securities declined until the final weeks of the year, when a modest rally occurred. New corporate financing, which was at the heaviest rate in many years in April and May, receded sharply with the decline in bond prices. Yields on bonds of various ratings for November, 1946 compared as follows with those at the end of 1945:

Rating	*1945*	*1946*
Aaa	2 61	2.59
Aa	2 68	2 69
A	2 79	2 84
Baa	3 10	3.17

Yields on municipal securities increased substantially as prospects of tax reduction lowered the value of the tax exemption privilege. Furthermore, as the supply of municipal issues increased, it was necessary to find buyers among institutional and other investors who were not able to benefit as much from the income tax exemption feature as did wealthy investors in the top personal income tax brackets.

Changes in yields of United States Government, municipal and high-grade corporate obligations from month to month during 1946 are listed in Table 2.

The turnover of bonds on the New York Stock Exchange aggregated only $1,364,000,000 for the year, the smallest since 1917. As in preceding years, a reason for the relatively reduced turnover on the New York Stock Exchange was the greatly en-



TWELVE-YEAR MOVEMENT OF 40 STANDARD BONDS

larged importance of the market in United States Government securities, which was conducted almost entirely over the counter.

TABLE 2—BOND YIELDS

Month	*7–9 Yrs.*[a]	*15 Yrs & Over*[a]	*Municipal*	*Corporate*
January	1.31	2 21	1 57	2 43
February	1 28	2 12	1 49	2 36
March	1 28	2 09	1 49	2 35
April	1.36	2 08	1 45	2.37
May	1 47	2.19	1.54	2.44
June	1 43	2.16	1.55	2.42
July	1 40	2.18	1 60	2.41
August	1 46	2.23	1 65	2.44
September	1 55	2 28	1 75	2.50
October	1 56	2 26	1 84	2 51
November	1.58	2 25	1 80	2 51
December	1 56	2 24	1.87	2 55

[a] United States Government bonds

A feature of the bond market during the year was the ending of the wartime limitation upon daily fluctuations in prices of Government securities to ¼ of a point. This limitation on daily price changes was an informal arrangement that was adopted without publicity during the war. When selling pressure on the Government bond market increased late in April with abolition of the preferential discount rate of ½ of 1 percent on advances secured by short-term Government obligations, the dealers ended price limits after trading had become virtually impossible for several days because bids were not available ¼ point below those of the previous day. Thereafter, the market for long-term Government securities was free to fluctuate, although the Federal Reserve banks continued to intervene in the market.

New Financing. For the first time in many years, the Federal Government did not borrow new money in 1946. On the contrary, a substantial cut was effected in the public debt through application of the huge cash balance resulting from the Victory loan to this purpose.

Corporate financing was heavy in the early months of the year, and a large number of new speculative stock issues were successfully sold while the market was rising. Many of these issues were quoted at premiums immediately after offering, which increased the public's appetite for such flotations. With the decline in bond and stock prices in the latter half of the year, new financing activity dwindled.

New State and municipal financing increased for the year, as local public works postponed during the war were launched. Corporate financing to raise new capital was the largest in a number of years, the decline in total financing on corporate account being due to lessened refunding activity. New financing for 1946 by issuers other than the Federal Government aggregated $8,476,000,000, as compared with $7,958,000,000 in 1945. New financing month by month during the year is shown in Table 3.

The Nation's Savings. A sharp decline in the volume of national savings occurred during 1946, as consumer expenditures soared because of higher prices and larger supplies of consumer goods available. Savings for the year were estimated by the Department of Commerce at $17,500,000,000, as compared with $33,100,000,000 the year before. This was the smallest total since 1941, and represented only 12 percent of the national income. The trend of savings during the war period and in each quarter of 1946 is shown in Table 4.

TABLE 3—SUMMARY OF NEW FINANCING
(In millions of dollars)

Months	Total (New and Refunding)	Total New Capital	Total Domestic	New Capital State and Municipal	New Capital Federal Agencies	Corporate Bonds and Notes	Corporate Stocks	Foreign	Total Refunding
January	346	200	200	68	1	10	122	..	146
February	430	122	122	57	18	5	42	..	307
March	562	200	200	56	16	17	111	1	362
April	1,097	373	373	61	22	118	172	..	723
May	1,037	310	302	103	7	99	93	8	728
June	847	425	425	108	9	115	193	..	423
July	929	491	491	124	..	183	184	..	438
August	559	419	419	64	..	196	159	..	141
September	430	231	231	61	..	95	74	..	199
October	552	353	353	49	47	213	43	..	199
November	676	590	590	69	..	444	145	..	86
December	1,011	788	788	119	..	544	125	..	223

TABLE 4—TRENDS IN CONSUMERS' SAVINGS

Year or Quarter	Disposable Income	Less: Consumer Expenditures	Equals: Savings	Per Cent of Disposable Income Spent	Saved
			(Billions of dollars)		
1935–39 average	64.3	58.8	5 5	91.4	8 6
1940	72.9	65.7	7.3	90.1	9.9
1941	88.7	74.6	14 2	84 1	15.9
1942	110 6	82 0	28.6	74.1	25.9
1943	124 6	91.3	33 3	73.3	26.7
1944	137.4	98 5	38 9	71.7	28.3
1945	139 6	100 4	33 1	76 2	23 8
1946	144.5	127.0	17.5	87.9	12.1
Seasonally Adjusted Annual Rates:					
First quarter	138 0	120 9	17.1	87.6	12.4
Second quarter	141 8	122 0	19 8	86 0	14.0
Third quarter	148.4	129.4	19 0	87.2	12.8
Fourth quarter	149.7	135.5	14.2	90 5	9.5

Corporate liquid resources, which had expanded very sharply during the war, were reduced moderately in 1946 because of huge plant expenditures, heavy purchases of goods for inventory and payment of taxes due. This was particularly true of corporations whose activities expanded during the war and those that had operating losses because of strikes and reconversion delays. A number of large corporations such as the General Motors Corporation and the General Electric Corporation arranged to borrow substantial sums of money because of the heavy drain on their cash resources. The Securities and Exchange Commission reported current assets and liabilities of all United States corporations except banks and insurance companies as shown in Table 5.

TABLE 5—CURRENT ASSETS AND LIABILITIES OF ALL UNITED STATES CORPORATIONS
(In billions of dollars)

	Dec. 31 1943	Dec. 31 1945	Sept. 30 1946
Current Assets			
Cash on hand and in banks	21.7	22.2	22.3
United States Government securities	16 0	21.2	16.2
Receivables from Government	5.0	2 7	.7
Other notes and accounts receivable	21.9	22.3	26.4
Inventories	27.6	26.7	31.7
Other current assets	1 3	2.4	1 6
Total Current Assets	93.5	97.5	98.9
Current Liabilities			
Advances and prepayments, Government	2.2	0.9	2
Other notes and accounts payable	24.1	24 9	26 6
Federal income tax liabilities	16 6	11 2	8 7
Other current liabilities	8.7	7.9	8.0
Total Current Liabilities	51.6	44 9	43.5
Net Working Capital	41.9	52.6	55.4

Regulatory Policy. Changes in personnel on the Securities and Exchange Commission brought the promise of modifications in security regulations, with a view to simplifying requirements and facilitating the conduct of business. The SEC worked on simplifying its registration forms, particularly for new offerings under the Securities Act of 1933. The Commission also gave considerable study to the dissemination of information about new offerings before the effective date of registration statements. Proposals were advanced for permitting wide circulation among prospective buyers of the preliminary or "red herring" prospectus that is prepared for a new offering before the price and date have been filed with the SEC.

The sharp break in stock prices in the spring centered attention upon the heavy liability incurred by underwriters in "stand-by" agreements, under which investment bankers agree to purchase the portion of a new security offering to a corporation's stockholders that the latter do not take. Proposals were advanced for reducing such liability through permitting underwriters to purchase rights for these offerings in the market while the offer is open, exercising them and selling the stock thus acquired through their sales forces. Circulation of the "red herring" prospectus also was expected to reduce underwriting risks in these cases by shortening the stand-by period.

JULES I. BOGEN.

FINE ARTS, Commission of. The official advisory body of the U.S. Government upon matters of art concerning projects of the Federal Government in the District of Columbia, composed of seven members appointed by the President. Expenditures are administered by the Department of the Interior. Chairman: Gilmore D. Clark. It is not to be confused with the Section of Fine Arts of the Public Buildings Administration, which was formerly charged with the selection and placing of designs in public buildings but was discontinued in 1943.

FINLAND. A republic of Northern Europe. Capital, Helsinki (Helsingfors).

Area and Population. Finland's original area of 149,588 sq. mi., including about 11 percent of inland water area, was reduced to 134,253 sq. mi. by the Soviet-Finnish peace treaty of Mar. 12, 1940, and was further reduced to about 127,600 sq. mi.

under the terms of the armistice of September 19, 1944, following the second war with Soviet Russia. The estimated population of the prewar area on January 1, 1943, was 3,887,217. About 89 percent of the inhabitants speak Finnish and most of the remainder Swedish. Estimated populations of the chief cities on January 1, 1940, were: Helsinki (Helsingfors), 304,965; Tampere (Tammerfors), 76,730; Turku (Abo), 74,351; Viipuri (Viborg)—ceded to the Soviet Union—74,247; Vaasa (Vasa), 32,695. Swedish place names are given above in parentheses.

Education and Religion. School attendance was: elementary (1944), 377,014; secondary (1945), 78,232; university and schools for higher education (1945), 11,656. The population in January, 1943 included: 3,779,166 Lutherans; 70,542 Greek Catholics; 1,050 Roman Catholics; 10,631 Baptists, etc.; 1,467 Jews; and 519 Mohammedans.

Government. The Constitution of July 17, 1919, vested executive powers in a President elected for six years by 300 electors, chosen in the same manner as members of the Diet. Legislative power rests with the unicameral Diet and the President. The 200 members of the Diet are elected by direct vote of all citizens, male and female, 24 years or more of age. The standing of the parties in the Diet elected July, 1939, was: Social-Democrats, 85; Agrarians, 57; Coalition Party, 25; Swedish People's Party, 18; IKL (Fascist group), 8; Progressives, 7. For the present composition of the Diet, see *Events*, below. President of the republic is Field Marshal Baron Carl Gustav Mannerheim, who was elected to this post on August 1, 1944, upon the resignation of President Risto Ryti. Under the emergency legislation passed at that time (see YEAR BOOK for 1944, p. 217) some functions until then exercised by the President were transferred to the Premier. Juho K. Paasikivi, who became Premier on November 17, 1944, was elected President by the House of Representatives on March 9, 1945.

Events, 1946. In the early months of the year, Finland's public life was overshadowed by the great trial of former President Risto Ryti and seven other high officials, accused of responsibility for the war with Russia, and its political repercussions.

The verdict of the special "People's Court," which had been created *ad hoc* by an act of Parliament, was announced on February 21. All the defendants were found guilty. Ryti was sentenced to ten years in prison at hard labor. Former Minister of Finance Vaino Tanner and former Premier Edvin Linkomies were given five and a half years each; former Premier Jukha Rangell, six years; the former Minister to Berlin, Toivo M. Kivimaeki, five years; Sir Henrik Ramsay, former Foreign Minister, two and a half years; former Minister of Education, Antti Kukkonen and former Assistant Minister of Finance Tyko Reinikka, each two years.

It had been clearly a political trial, and the comparatively mild sentences represented a compromise. Some, if not all, of the accused were unquestionably responsible for Finland's involvement in the war at Germany's side, and for her failure to make an early peace. The eight men, however, had been puppets rather than war criminals, and their guilt was small compared to that of the defendants in the Nuremberg Trial. Even so, their conviction and punishment was inescapable, and a few days before the verdict was announced the Speaker of the Finnish Diet, Karl Fagerholm, had expressed the view that Finland would face "bad times," if the verdict should displease the victor nations, Russia and Britain.

Thus the proceedings, while technically fair, were carried on under political pressure, which did not, however, aim at death sentences. Nor did the Russian-dominated Control Commission subsequently interfere with the latitude shown the condemned men by the prison authorities. They were not really subjected to hard labor but were permitted to engage in writing or studies while serving their terms in large, modern cells at the Helsinki Central Prison.

President Mannerheim Steps Down. As a direct, though officially unavowed, consequence of this trial and the conviction of his close associates during the war, President Mannerheim resigned on March 4, two months after his return from a prolonged stay abroad. Unmolested by the authorities, the aged ex-President then retired to his estate at Gerknaes. In mid-October he went to Stockholm for treatment by an ulcer specialist.

On March 9, Acting President and Premier Juho K. Paasikivi was elected, by a 159 to 14 vote of the Diet, to succeed Mannerheim until March 1950, when the latter's term would have expired.

Paasikivi's elevation to the presidency made the choice of a new Premier necessary. Urho Kekkonen, former Minister of Justice, having failed in the task of forming a government given him by the new President, the latter turned over the job to Mauno Pekkala, a leader of the Social-Democratic party's left wing.

On March 25, Premier Pekkala formed a Cabinet composed of five members of his own party, six Popular Democrats (Communists), five members of the Agrarian League and one representative of the Swedish People's party. Another Swedo-Finn without party affiliation, Carl J. H. Enckell, was continued in his former post as Foreign Minister. The new Government was regarded as being somewhat more Leftist than the preceding one.

The Purge Continues. The new Government, and in particular the Communist Minister of Interior Yrjoe Leino, vigorously pursued the purge of pro-German or anti-Russian elements in the Army, which had begun the year before In the first days of June, a large number of General Staff officers were arrested on charges of having set up secret arms dumps in violation of the Armistice. On June 14, Lt. Gen. Hugo Oesterman, two other generals, and a number of other high-ranking officers were discharged from the Army by order of the President. On July 24, the State Police announced the arrest of Lt. Col. Christian Fabritius, who was officially identified as the leader of a secret pro-German movement established after the Armistice.

After an eight months' investigation, Lt. Gen. Karl L. Oesch, former Chief of the General Staff, went on trial on various war crimes charges. Late in July, he was convicted and sentenced to twelve years in prison at hard labor. A colonel and a major were also given long prison terms for the maltreatment of Russian prisoners of war.

On November 21 the new Chief of the General Staff, Gen. Ilmarki Karhu, was also arrested in connection with the arms caches affair.

The purge extended also to the political field, involving in particular a number of Tanner's followers in the Social-Democratic party. This led to a serious rift within the ranks of that party, which had already been split, at the end of March, by the secession of its left wing under Pekkala. Other influential members of the party followed suit, but at the party convention in June the imprisoned Tanner still proved to be the strong man. In a heated contest for the leadership of the party, the "Tannerite" Emil Skog won by a large majority over the "anti-Tannerite" Karl Fagerholm.

Pilgrimage to Moscow. The principal problem confronting Premier Pekkala and his Cabinet from their first day in office was how to obtain the best possible conditions for Finland at the forthcoming peace conference. They felt, in particular, that the little country was hardly able to bear the heavy reparations burden imposed on it by the Armistice of September 1944.

On April 17, a strong Finnish delegation, headed by Premier Pekkala, arrived in Moscow for personal talks with Stalin and other Soviet Government leaders, at which they hoped to create a favorable atmosphere for the later peace conference. They stayed in the Soviet capital until April 24.

Although the Finns were treated to the Kremlin's usual display of lavish hospitality, they did not accomplish very much. Stalin, it is true, agreed to waive any further claims for restitution of property removed by the Finns from Karelia during the war —valued at three billion Finnish marks—and he also made some concessions concerning Finnish traffic problems, but the Russians were adamant on the territorial status quo, and on the $300,000,000 reparations total fixed by the Armistice.

The delegation also put the finishing touches to a new Finnish-Russian trade agreement, under which the Soviet Union promised to supply Finland with 100,000 tons of critically needed cereals as well as an unspecified amount of fertilizers, in exchange for Finnish forest products and minerals. The treaty, which was published on May 3, provided for the exchange of $32,000,000 worth of merchandise between the two countries.

The Peace Settlement. Meanwhile, the Council of Foreign Ministers had begun the drafting of a peace treaty for Finland. Agreement on this treaty was reached more easily than on any other under consideration by the Foreign Ministers' Council.

The terms of the draft were made public on July 30, with only a few minor discrepancies between the Russian and British proposals remaining to be ironed out at the peace conference.

The treaty followed by and large the provisions of the Armistice. It sanctioned the cession of the Finnish port and province of Petsamo to Russia; confirmed the fifty-year lease for a Soviet naval base in the Porkkala-Udd area of southwestern Finland; and provided for the return to Finland of the peninsula of Hangoe, leased to the Soviet Union under the earlier peace settlement of March 12, 1940. The total amount of reparations to be paid Russia was confirmed at $300,000,000, payable over a period of eight years as from September 19, 1944.

Finland's armed forces were reduced to a land army of 34,400; a navy of 10,000 tons, with a personnel strength of 4,500; and an air force of 60 planes, with a personnel strength of 3,000.

In the preamble to the draft treaty, the Allied powers recognized that Finland had "loyally carried out the armistice terms," and they promised to support Finland's application to become a member of the United Nations after the signing of a peace treaty.

On August 13, a Finnish delegation of 20, headed by Pekkala and including the Ministers Enckell and Leino, arrived in Paris to plead Finland's cause at the Peace Conference. At the send-off, President Paasikivi reportedly urged the delegates to "always have in mind that the present Finnish foreign policy aims at one thing, namely: to keep up friendly relations with Russia."

Both within the delegation and in Helsinki political circles opinion was divided as to which would be the better course for Finland to pursue: accept without reservation the draft treaty prepared for her by the Council of Foreign Ministers; or attempt to obtain better terms in Paris, even at the risk of incurring Soviet displeasure. President Paasikivi favored the former course, Foreign Minister Enckell the latter, with Premier Pekkala trying to steer a middle course.

When Mr. Enckell, in his address to the Peace Conference on August 15 suggested "it would be well" if Finland's burden of reparations were reduced by $100,000,000, he was promptly and sternly rebuked by Soviet Foreign Minister Molotov, who flatly refused to grant Finland any further alleviations, territorial or economic.

As a result of this clash, which pointed to a deterioration of relations with Russia, the Finnish delegation renounced its original plan of asking also for territorial concessions. It did, however, request a doubling of the air and naval forces provided in the draft treaty, on the ground that the country's extended coastline made patrolling difficult.

Overriding the Finnish objections, the Allied committee on Finland, on August 29, approved the principal articles of the draft treaty. The only change in the draft which was made on September 7, was the insertion in the Preamble of an Australian-sponsored addition, to the effect that the questions still outstanding should be settled "on the principles of justice." By that time, the Finnish delegation had already returned home, with practically nothing to show for its effort.

The draft treaty in its entirety was approved by the Peace Conference on October 14, after the Soviet Union by an 11 to 5 vote had won its point that reparations should be fixed at $300,000,000. On the question of the amount to be paid by Finland for United Nations property damaged during the war, the French proposal for a 75 percent compensation was adopted over the 25 percent proposed by the United States and others.

The role played by the Finnish delegation at Paris did not strengthen Premier Pekkala's position at home and the resulting controversy for a while threatened to cause the fall of his government. The crisis passed, however.

The Government also weathered a fierce attack made on it by Rightist deputies, on November 5, on the ground that the political police had detained persons without due cause. A motion of censure was defeated by a vote of 93 to 72.

The Aaland Question. The question of enlarged home rule for the Aaland Islands group in the Baltic, with its compact Swedish population, came up again during the year. While the Aalanders did not again press for union with Sweden—as they had unsuccessfully done after World War I—they demanded the right to fly their own flag (in the Swedish colors), the privilege to refuse service in the armed forces of Finland, and a ban on the establishment of Finnish schools on the islands, without the consent of the local authorities.

A bill to this effect was approved by the Finnish Government on November 6 and sent to the Diet, where it was expected to encounter stiff opposition.

Complete demilitarization of the Aaland Islands, which had been stipulated by the international Aaland conventions of 1856 and 1921, was again agreed upon in Article v of the draft peace treaty, after the fortifications built during the war had been removed under the terms of the 1944 armistice.

Production. Agriculture is the chief occupation of the people of Finland, although the cultivated area

covers only 6.6 percent of the land. The principal crops of 1944 were, in tonnage: potatoes, 640,124; oats, 345,818; barley, 149,337; rye, 167,260. The total forest land amounts to 53,771,000 acres, with productivity on 42,206,000 acres. In 1943, 4,590 large factories, employing an aggregate of 186,946 workers, yielded an aggregate product of 38,476 million marks. In 1943 there were 431 saw mills.

Foreign Trade. In 1944 imports were valued at 8,919,600,000 Finnish marks (12,876,000,000 in 1943); exports, 6,580,000,000 Finnish marks (8,712,000,000 in 1943). In 1945 imports totaled 6,820,000,000 Finnish marks; exports, 11,471,000,000 Finnish marks, including 4,171,000,000 marks for war reparations.

JOACHIM JOESTEN.

FIRE PROTECTION. The rising trend of fire losses of recent years continued at an accelerated rate during 1946. The preliminary estimate of the National Board of Fire Underwriters of the fire loss for the year was $561,487,000, as compared with the corresponding 1945 estimate of $455,329,000. For purposes of comparison preliminary estimates of fire losses for the past ten years follow:

1937	$254,959,423	1942	$314,295,000
1938	258,477,944	1943	373,000,000
1939	275,102,119	1944	423,458,000
1940	285,878,697	1945	455,329,000
1941	303,895,000	1946	561,487,000

In the United States, Canada, Alaska, and Newfoundland there were at least 187 fires during 1946, each of which resulted in a loss of $250,000 or more. This figure exceeds by 24 fires the high of 1945. Four general occupancy groups account for 72 percent of all the large loss fires reported to the National Fire Protection Association. Manufacturing plants suffered the greatest number with 49 out of the 187 total, followed closely by warehouses (including grain elevators) with 40. A newcomer in the higher brackets was the aviation field with 24 large loss fires, 21 of which involved aircraft fires in flight or at time of crash. An increase in the number of disastrous waterfront fires was noted. Over 50 percent of the large loss fires were primarily the result of inferior building construction. Lack of private fire protection facilities such as automatic sprinklers and fire detection and alarm equipment were conspicuous factors in a majority of cases. Failure to protect horizontal and vertical building openings was responsible for many severe losses.

The year was marked by three hotel fires resulting in substantial loss of life—the Winecoff Hotel fire in Atlanta on December 7 which took 119 lives, the LaSalle Hotel fire in Chicago on June 5 in which 61 persons were killed and the Canfield Hotel fire at Dubuque, Iowa on June 9 in which 19 persons died. As the year ended a national conference on hotel fire safety was being planned under the auspices of the National Fire Protection Association and with the cooperation of the American Hotel Association.

One of the most striking developments during 1946 in fire department operations was the widespread and growing tendency to shorten the working hours of firemen. It appears that the trend will continue very substantially throughout 1947. While some progress was made during 1946 in rebuilding the fire prevention inspection forces and procedures of many municipal fire departments, this very necessary function has been slow to return to prewar standards and in all too many cities, fire prevention activities still appeared to be a step-child of the fire department rather than a most essential and effective part of the fire department program.

Fire departments throughout the country showed great interest in the use of water spray or "fog" as a means of extinguishing fires and also in the installation of two-way radio facilities.

Throughout the war years there was little progress made in building codes and fire prevention codes in cities, but during 1946 a substantial amount of interest and development took place. The National Fire Protection Association expressed the fear a year ago that building codes and other construction standards would be broken down substantially because of the tremendous pressure for additional housing. While this has occurred in some cases, it has not been as widespread as we feared. The conversion of many large old homes to rooming houses has brought serious life hazards and has been a matter of concern to most municipal building inspectors and fire chiefs.

The City of Milwaukee adopted a very interesting ordinance providing for a fine or jail sentence for any person who through careless smoking sets fire to a building. It was provided that copies of the new ordinance must be plainly posted in each sleeping room of all hotels, rooming houses and other places of public abode.

The long awaited revised edition of the National Electrical Code made its appearance late in 1946.

An interesting legislative development of the year was a decision of the Supreme Court of Texas which upheld the reasonableness of the adoption by reference of the Standards on Liquefied Petroleum Gases of the National Fire Protection Association.

A favorable factor in the overall picture was the steadily growing movement to educate the public in at least the fundamentals of fire safety. The spring Clean-Up Campaign and the observance of Fire Prevention Week were more extensive in 1946 than in any previous year. An important accomplishment was the issuance by the United States Office of Education of a Curriculum Guide to Fire Safety for Elementary Schools. Fire prevention education has always had good support from the newspapers, general and trade magazines, and now has a new ally in the radio. Nearly all the radio stations of the country cooperated during 1946 in the fire prevention campaign and many of them provided new and effective material. Winner of the international contest sponsored by the National Fire Protection Association for educational activities conducted during Fire Prevention Week was Memphis, Tennessee, winner also in 1945 as well as in certain previous years. Benton Harbor, in Michigan, and Jersey City, in New Jersey, were second and third respectively. In the Inter-Chamber Fire Waste Contest sponsored by the National Fire Waste Council of the U.S. Chamber of Commerce for year-round fire prevention activities, Atlanta, Georgia, emerged as winner of the grand award for its performance during 1945.

CHARLES SUMNER MORGAN.

FISCAL SERVICE. A division of the U.S. Department of the Treasury which consists of the following: Office of the Fiscal Assistant Secretary (Edward F. Bartelt); Bureau of Accounts (R. W. Maxwell, Commissioner); Bureau of the Public Debt (Edwin L. Kilby, Commissioner); Office of the Treasurer of the United States (William A. Julian, Treasurer).

FISH AND WILDLIFE SERVICE. The return of peace brought renewed opportunities for hunting and

fishing to millions of Americans and resulted in increased pressure on wildlife populations. Although the war years had introduced conditions unfavorable to wildlife, such as increased pollution of waterways, during this period the populations of game animals had some opportunity to restore former losses through the temporary reduction in hunting and fishing. But this respite came to an end even before the termination of the war, as the number of hunters and fishermen increased sharply. Not only are there more sportsmen, but many proposed postwar projects—like the large scale development of the nation's waterways—will inevitably decrease the areas suitable for wildlife. These conditions make ever more difficult the task of the Fish and Wildlife Service—to maintain adequate populations of wild animals, birds, and fishes for recreational and economic use.

One of the most important and far-reaching events of the year in conservation is the amended Coordination Act of 1946, known as the Act of August 14, 1946, Public Law 732. It provides that Federal and State wildlife agencies acting through the Fish and Wildlife Service shall be given opportunity to participate in planning when any major construction development affecting fish and wildlife in rivers, streams, or other waterways is undertaken by the Federal Government.

The year brought fresh confirmation of the success of the most ambitious experiment in salmon conservation ever undertaken—the transfer of all the salmon runs blocked by Grand Coulee Dam to new spawning tributaries downstream from the dam. For the second consecutive year since the relocation activities were terminated, the fish were allowed to pass upstream unhindered. Only a few strays proceeded upstream to Grand Coulee, the vast majority turning off and entering the tributaries to which the runs had been transplanted.

Federal fish hatcheries, of which there are 108, produced a total of 5,454,557,885 eggs, fry, and larger fishes during the calendar year 1945. During this period 7,600,000 fish were supplied for the stocking of farm ponds—an increase over 1944 of nearly 90 percent. In connection with the stocking of farm ponds, the Fish and Wildlife Service made 13,276 individual plantings during the year.

Under the terms of the Pittman-Robertson Act, $2,260,000 was apportioned among the states for the restoration and development of their wildlife resources for the fiscal year beginning July 1, 1946. The funds for this cooperative restoration work are derived from an excise tax on firearms, shells, and cartridges. These funds are set aside in a special account, from which Congress each year authorizes the expenditure of a certain portion. The Federal allotment is then supplemented by the states, which contribute 25 percent of the cost of the projects. Thus supplemented by the states, the fund available for cooperative wildlife restoration projects during the fiscal year 1947 was more than three million dollars. All of the states participate in this program with the exception of Nevada, which has not yet passed required legislation.

The national wildlife refuges administered by the Fish and Wildlife Service are becoming increasingly important as safeguards for wildlife. These refuges now number 291 and comprise 17,819,495 acres. Approximately 58 percent of the acreage is set apart for big-game animals; the balance (except for a two-thousand-acre research refuge at Patuxent, Maryland) for waterfowl and other birds and general wildlife. During the year, the Migratory Bird Commission approved the addition of 341,324 acres to the refuge system.

In addition to protecting and increasing wildlife populations, wildlife refuges served many secondary economic and recreational purposes. Cultivation of about 30,000 acres of refuge lands by private individuals and refuge personnel in 1945 produced 489,223 bushels of grain and other crops. A total of 253,490 animal-use months of grazing was permitted on refuge grasslands, from which 13,589 tons of hay were harvested. Sale of timber from refuge lands in 1945 was more than double that of any previous year, and made a substantial contribution of materials to aid in the critical lumber shortage. Satisfactory water conditions and improved management conditions served to increase the number of fur animals on the refuges in 1945, when 235,722 surplus animals were removed. The total revenue from all economic uses of the national wildlife refuges was $350,631, which was deposited in the United States treasury.

As wartime restrictions were relaxed, more and more people used the refuges for recreation. Sport fishermen took 772,849 fishes from refuge waters in 1945; commercial fishermen removed 894,358 pounds of "rough fish."

The importance of maintaining and enlarging the national wildlife refuge system as a stabilized protective measure for wildlife was emphasized by a sharp reduction in the continental populations of waterfowl. On the basis of its annual January inventory of migratory waterfowl in the United States, the Fish and Wildlife Service estimated the 1946 populations of these birds at 80,000,000, a decrease of 36 percent since 1944. With only two exceptions, all species of game ducks declined. The Canada goose populations of the Mississippi flyway were so seriously reduced that the species had to be given complete protection from hunting in this flyway during the 1946 hunting season. The principal causes of the losses among waterfowl were believed to be the unfavorable climatic conditions on the breeding grounds during the past two years, coupled with an excessive kill by the rapidly growing army of hunters. To meet the emergency presented by the diminishing flights of waterfowl, the Department of the Interior issued the most stringent hunting regulations since 1938, cutting the length of the season from 80 to 45 days, reducing the daily bag from 10 to 7 birds, and the daily possession limit from 20 to 14.

The Service's tabulation of figures received from Federal, State, and private agencies showed that populations of all animals classified as big game within the United States totaled 7,148,422 in 1943, compared with 6,748,424 animals in 1941, or a gain of 5.9 percent. These figures are the result of an inventory of big-game animals, taken annually under the sponsorship of the Fish and Wildlife Service.

Deer greatly outnumber all other big-game animals, the white-tailed, mule, and black-tailed deer together comprising 89 percent of all the large game in the country. At the other extreme is the woodland caribou, now on the verge of extinction within the United States, with only 15 animals reported.

The State with the largest big-game population in 1943 was Pennsylvania, with 1,104,655 animals, nearly all of which were deer. Michigan ranked next with 731,407, followed by Minnesota with 631,877, California with 597,625, and Oregon with 584,261. Kansas is the only State that has no big game.

During the fiscal year ending June 30, 1945, 8,190,901 hunting licenses and 8,280,232 fishing licenses were sold by the various states. These

figures represent an increase of 685,643 hunters and 449,755 anglers compared with the previous year. Sales of Federal migratory bird hunting stamps, which are required of all waterfowl hunters, numbered 1,725,505 during the 1945–46 hunting season.

Despite shortages of men and materials, the cooperative program for the control of predatory animals destructive to livestock and of injurious rodents resulted in a take of 117,204 predators, compared with 112,451 the previous year. Predators taken under this program included 108,311 coyotes, 1,557 wolves, 6,487 bobcats and lynxes, 730 bears, and 119 mountain lions. In rodent-control operations, 11,397,769 acres of infested lands were treated for the control of prairie dogs, ground squirrels, jack rabbits, field mice, and other destructive pests. In addition, 442,004 premises were treated for the control of the common brown and other house rats.

A total of 64,523 fur-seal skins were taken in the Government-administered sealing operations on Alaska's Pribilof Islands during the 1946 season. This represents a decrease of 12,441 skins under the 1945 take, the reduction being attributed to the late arrival of the seal herd at the islands, probably because of unusually severe weather the previous winter. The seal herd numbered 3,386,008 animals when the annual census was taken on August 10—an increase of 7.31 percent over the 1945 census. When the Federal Government assumed active management of the fur-seals in the Pribilofs in 1910, the herd contained only 132,279 animals. By careful conservation the herd has been developed to its present size and, at the same time, has produced 1,367,322 skins which have been sold for the account of the Government. Fur-seals, which have a soft and beautiful underpelage, are highly valued and the Pribilof Island herd is estimated to be worth in excess of $100,000,000.

The Fish and Wildlife Service initiated an educational program for presenting the findings of research on fishery production techniques, sanitation, marketing, and cooking to the fishing industry and also for popularizing consumption of fishery products, through the use of movies, publications and demonstrations.

The Service also sought to improve utilization of the fishery resources by encouraging increased use of fish in the Federally aided school-lunch program; air shipment of fish and shellfish; quick freezing of precooked fish dishes; more extensive storage of fish in frozen-food lockers both at home and in locker plants; and greater utilization of fish and seaweeds as sources of amino acids, peptides, sterols, vegetable gums, drying oils, and other chemicals and pharmaceuticals.

ALBERT M. DAY.

FLOOD CONTROL. Increasing importance of flood-control measures and works is due largely to increasing frequency and intensity of floods, coupled with the fact that many open areas which formerly provided natural and harmless storage for flood waters are being limited and restricted by settlement and by industrial and agricultural development. The annual expenditures on flood control aggregate many millions of dollars and cover hundreds of individual works.

The Federal program for general flood control, exclusive of earlier projects on the Mississippi and Sacramento rivers, was begun in 1937, and by the end of June, 1946, there were 50 reservoirs and 135 local works completed in all parts of the country. The flood-control act of July 24, 1946, authorized $772,000,000 for 123 additional works. However, under a government order limiting Federal works in order to permit of concentrating on the housing problem, flood-control expenditures for the fiscal year 1946–47 are restricted to $135,000,000.

The authorized projects constitute a comprehensive plan, for many of the reservoirs may be utilized for river regulation, power development, or for other purposes, as well as for holding flood waters. Projects completed in 1946 include the Indian Rock dam in Pennsylvania and protective works at East Peoria, Ill. Many authorized works were halted during the war and resumed after its close, but under the order noted above they are again deferred. Those already under construction were not affected.

Floods may be due to long continued rains or they may be "flash" floods caused by sudden intensive rains or "cloudbursts" near or distant. An example of the latter is the September flood at San Antonio, Texas, in which several people were drowned, cattle were lost, property was destroyed, and torrential streams two to six feet deep flowed through the streets, while road, railroad, and airplane traffic was interrupted.

Detailed and continuous study of hydraulic and meteorological conditions and records are needed in planning relief and forecasting floods, and this work is covered by such organizations as the Tennessee Valley Association, the Los Angeles County Flood Control District, and many relating to specific areas, such as the Ohio valley, the Connecticut River valley and the Allegheny River valley.

During 1946, more than a dozen States experienced floods of more or less disastrous character, and control works are being planned and constructed in almost every State. For the control of the Illinois River there is a controversy between the government engineers and the local engineers. The former advocate reservoirs on headwaters of the tributaries; the latter object on the ground that large areas of good agricultural lands would be destroyed. They argue that a better plan would be to set back the levees along the river, thus increasing the flow capacity of the channel within established limits.

Where heavy floods are recurrent, as along the lower Mississippi, "floodways" or relief channels may be provided to divert excess flows into other streams. But in 1946 the Bureau of Reclamation warned residents of the upper Sacramento valley against constructing buildings or other improvements in the floodways of the Sacramento system. Flood control on this river by the Shasta Dam has been so successful that utilization of the low-lying floodway lands has been proposed. But it is pointed out that heavy flows of water may have to be discharged without much warning, in order to lower the water level and so maintain space in the reservoir to hold expected flood water.

At Fresno, Calif., a million-dollar project has been approved, after delay resulting from disputes over financing. Lowering the level of Lake Tahoe, in California, is an item in a large project, the purpose being to stabilize the level and so prevent recurring flood damages. For the control of flash floods in the basin of the Santa Ana River, also in California, the winding course is to be replaced by a direct course between earth levees and by a three-mile concrete channel 40 feet wide and 25 feet deep. For flood control on the Williamette River, in Oregon, a series of seven dams is proposed.

Water supply and flood control at Columbus, Ohio, are to be improved by one dam on the Scioto

and another on the Sandusky River. A drainage and levee system for the East St. Louis district, Illinois, is proposed to prevent such floods, caused by heavy rains, as produced great distress and property damage on August 14 and 15. In the case of a flood on the Susquehanna drainage area in May, it was estimated that the dams and channels already completed had greatly reduced the flood damage. Flood relief of Rome, Georgia, and regulation of the Etowah River are purposes of the Allatoona concrete dam, 48 miles above the city.

In China, a big project for 1946 was the repair of the dikes or levees along the Yellow River, which had been cut to flood the country and so halt the Japanese invasion. This work is largely in the hands of American engineers and was pushed so as to be finished before the next flood season. In India, a dam and reservoir are projected for the protection of Calcutta. See DAMS, WATER SUPPLY, METEOROLOGY.

E. E. RUSSELL TRATMAN.

FOOD AND DRUG ADMINISTRATION. The American consumer and the honest manufacturer of foods, drugs, and cosmetics are receiving greater protection than at any time since the original Food and Drugs Act of 1906 became law. A comparison of items on the shelves of grocery and drug stores in 1906 and 1946 reveals significant changes. Today unlabeled substitutions for foods and drugs and labels bearing blatant claims for incurable diseases are the exception. Labels have changed also in the information they furnish concerning ingredients and the safe use of the product. At no time in the history of Federal food and drug regulation has so much attention been concentrated on the fitness of raw materials and on sanitary handling at every step in processing and distributing merchandise.

Numerous industry groups under the leadership of trade associations waged sanitation improvement campaigns in 1946. Too many producers and handlers of foods, however, permitted their products to become contaminated by insects and rodents or used unfit raw materials. Filth and decomposition accounted for 70 percent of the 1946 food seizures.

The greatest number of food actions charging potential injury to health were caused by deleterious chemical preservatives added principally to beverages to prevent fermentation which could have been avoided by adequate sanitary precautions, and mineral oil substituted for food oil although it had been found to interfere with vitamin assimilation and cause other injurious effects. Mineral oil is only one example of violations which stem from economic developments, but directly affect public health. Others include low-fat butter, fruit deficient in fruit juices and occasionally sweetened with nonnutritive saccharin, and egg noodles deficient in egg, all seized in 1946.

Actions against adulterated drugs in most cases resulted from deviations in the proportions of ingredients, undissolved particles in injection drugs, or lack of sterility in surgical dressings. Violation of labeling regulations brought other drug actions. These included unjustifiable claims, often in accompanying literature; oral promotion by "pitchmen" for diseases not mentioned in the labeling; and retail druggists' sales of prescription drugs, such as sulfonamides and barbiturates, across the counter to laymen without prescription. Seizures of misbranded therapeutic devices increased materially in 1946; some bore unwarranted claims for such serious diseases as diabetes, blood poisoning, lung abscesses, and arthritis.

The use of nonpermitted coal-tar dyes accounted for the most serious violations in the cosmetic field. Other seizures involved cosmetics labeled with therapeutic claims that classed them with drugs.

The Food and Drug Administration's certification services cover coal-tar colors, insulin, and penicillin, all tested before distribution to assure purity and standard potency. A similar type of pretesting was conducted in 1946 under Civilian Production Administration allocation orders on all batches of streptomycin manufactured. New-drug applications requiring handling in 1946 numbered 174. Before a new drug may be placed on the market the manufacturer must demonstrate safety for use and the adequacy of manufacturing controls.

The resumption of imports from countries shut off during the war years from their customary trade created a major control problem. Excessive storage periods under inadequate protection and faulty production controls both led to an abnormally high percentage of rejections of items failing to meet American standards.

Total seizures of foods, drugs, cosmetics, and caustic poisons in the fiscal year 1946 were 2,835; criminal prosecutions numbered 350 and injunction petitions 36. Fines totaling $166,746 were imposed by the courts in criminal cases terminated during the year, with fines of $1,000 or more in 51 cases. Jail sentences were imposed upon 14 individuals, but where suspended for 5, with probation substituted.

PAUL B. DUNBAR.

FOOTBALL. The gridiron game enjoyed its greatest campaign in history during 1946 and reached an all-time high in popularity, with battles raging throughout the land from early October until the curtain fell on the numerous bowl games of New Year's Day. The year saw the breaking of all previous attendance figures in both intercollegiate and professional circles, the end of a three-year victory march by Army's fabulous gridiron machine and the advent of a new pro league to rival the old one.

Intercollegiate attendance figures increased as much as 48 percent, with 100,000 fans gathering in Philadelphia's Municipal Stadium to see Army and Navy in their traditional struggle, which perhaps was the most thrilling in the long service series. After rolling up a 21–6 halftime lead through the running and passing of Glenn Davis and Doc Blanchard, two all-time great stars, the Cadets won by 21–18. But the West Pointers played their hearts out to hold off an inspired band of Midshipmen, who just missed an opportunity for the biggest upset in football history when time ran out as they reached their foe's 8-yard line with four downs to go.

Except for rain, the U.C.L.A.–Southern California contest at Los Angeles would have outdrawn the service battle for 103,000 tickets had been sold, but the weather held the crowd down to 93,-714 persons who saw U.C.L.A. triumph by 13–6 to clinch the Pacific Conference championship and earn the right to play in the Rose Bowl. Michigan, which had 86,000 at its Army game; Notre Dame, Ohio State, U.C.L.A. and Army each played to more than 500,000 fans during the season.

The National Professional League cashed in on the current sports boom and shattered practically all of its attendance records when a total of 2,671,-696 fans turned out for 86 regular league and exhibition games, a gain of 39.2 percent over 1945.

Army, which had dominated the intercollegiate picture for two years, appeared headed for un-

disputed top honors again as the campaign progressed although storm warnings were coming out of South Bend, Indiana, where a rehabilitated Notre Dame squad—back under the guiding hand of the capable Frank Leahy—was getting ready to face the Cadets, meanwhile rolling over all other rivals. The two titans met in their epic struggle before 75,000—at the Yankee Stadium and the battle ended in a scoreless deadlock, the first time Army had failed to win in 26 contests over a period of three seasons.

The tie left the teams sharing the national football throne, but when the Cadets barely squeezed past Navy, which had lost seven games in a row, the West Pointers lost considerable prestige and left the Fighting Irish the Number 1 team of the land.

Near the close of the year, a joint statement from Notre Dame and West Point broke the startling news that the annual series, long dear to the hearts of every gridiron fan in the nation, would end with the playing of the 1947 contest at South Bend. Reason given was the belief that the game had grown beyond the control of the two great schools participating and might possibly be resumed at a later date if conditions warranted.

Davis, winner of the Heisman Trophy, and Blanchard were again the two big men of college football, while Earl Blaik, Army mentor, was voted the coach of the year, keeping his team up week after week in preparation for rivals who all pointed for their meetings with the powerful Cadets.

However, Army and Notre Dame had no monopoly on quality, for stellar individuals appeared all over the country. Georgia, with a truly great back in Charley Trippi, was rated best in the South and U.C.L.A. stood out in the Pacific Conference. Next were ranked Illinois, Big Nine winner for the first time since 1928; Michigan, Tennessee, Louisiana State, North Carolina and Rice Institute, which shared the Southwest title with Arkansas. Following them were Georgia Tech; Yale, with its most powerful eleven in years; Penn, Oklahoma, Texas, Arkansas, Tulsa, Delaware and Indiana.

Ranking high among the outstanding players were Johnny Lujack, Notre Dame's great field general; Burr Baldwin of U.C.L.A., Dick Huffman of Tennessee, Dick Scott of Navy, Herman Wedemeyer of St. Mary's, Harry Gilmer of Alabama, Levi Jackson of Yale and Buddy Young of Illinois.

After the signing of a five-year pact between the Big Nine and Pacific Coast Conferences, Illinois was chosen to battle U.C.L.A. in the Rose Bowl on January 1, 1947, amid considerable outcry because Army was not selected. The Illini, paced by Young, surprised even their most ardent admirers by crushing the Bruins, 45–14, before 90,000 persons. Lone happy note of the day for followers of U.C.L.A. was a record touchdown run by Al Hoisch, who took a kickoff behind his own goal line and raced 103 yards to tally for a new Rose Bowl mark.

In other major contests on New Year's Day, Georgia beat North Carolina, 20–10, in the Sugar Bowl; Georgia Tech trounced St. Mary's, 41–19, at Houston; Oklahoma routed North Carolina State, 34–13, at Jacksonsville; Rice blanked Tennessee, 8–0, at Miami; Arkansas and Louisiana State played a 0–0 tie at Dallas; Delaware conquered Rollins, 21–7, at Tampa for its twenty-fifth straight victory, and the West's Stars subdued the East, 13–9, in the Shriners' annual benefit game played before 62,000 at San Francisco.

The ninth North-South All-Star contest, played in December at Montgomery, Alabama, resulted in a 20–13 triumph for the South.

The professional game had a big upsurge with the début of the All-American Conference as a rival to the old National League. The new circuit, with key spots in New York, Cleveland, Chicago, Los Angeles, and San Francisco, concluded its regular schedule with the New York Yankees capturing the Eastern Division title and the powerful Cleveland Browns taking the Western crown. The Browns then went on to conquer the Yanks, 14–9, rallying before 40,469 shivering fans in Cleveland's Municipal Stadium to become the first champions of the conference.

In the National League, the Chicago Bears won in the West and the New York Giants in the East then the Bears triumphed by 24–14 before 58,346 screaming spectators at the Polo Grounds to gain the league crown for the seventh time. A betting scandal that broke before the game took some of the edge off the victory and led to an investigation of New York gamblers when one was arrested for having approached two Giants in an attempt to have them throw the game.

Bob Waterfield of the Los Angeles Rams and Bill Dudley of the Pittsburgh Steelers, who announced his retirement from football at the end of the season, generally were acclaimed as the two foremost players of the National League and Glenn Dobbs of Brooklyn's Dodgers was the No. 1 player of the All-American Conference.

THOMAS V. HANEY.

FOREIGN AGRICULTURAL RELATIONS, Office of. A branch of the U.S. Department of Agriculture which has been collecting, analyzing, and disseminating information on foreign competition and demand for farm products and agricultural policy. Its primary purpose is to study the factors influencing the food supply and needs of foreign countries, competition, trade barriers, production and marketing, and other developments affecting American agriculture. It also directs and coordinates the participation of the Department of Agriculture in the reciprocal trade agreement program and in other international agreements affecting agriculture. Director: L. A. Wheeler.

FOREIGN AID, Advisory Committee on Voluntary. On May 15, 1946 the President revoked Executive Order Number 9205, and thereby terminated the President's War Relief Control Board upon its own recommendation. As of that date, Federal registration of voluntary agencies, engaged in foreign relief and the welfare of the Armed Forces of the United States was no longer required. At the time the President revoked the Board, he addressed a letter to the Secretary of State and Secretary of Agriculture wherein he suggested they jointly appoint a new Committee on Voluntary Foreign Aid to tie together the governmental and private programs in the foreign relief field and to continue the liaison, advisory, and consultative functions of the War Relief Control Board.

In response to the President's request the Secretary of State and the Secretary of Agriculture appointed Mr. Charles P. Taft, Chairman, and Mr. Chester Davis and Mr. William Batt, members of the Advisory Committee on Voluntary Foreign Aid. The Committee met and formally organized on July 10, 1946.

It is the purpose of this Committee to guide the public and the relief agencies in the appropriate and productive use of voluntary contributions for foreign aid. In order to effect the services offered, all agencies cooperating with the Committee will submit periodic records of their activities. From

time to time summaries of the information received will be published, and the records of the Committee are at all times open to public inspection.

CHARLES P. TAFT.

FOREIGN AND DOMESTIC COMMERCE, Bureau of. A Bureau of the U.S. Department of Commerce, charged with promotion and development of United States commerce. Its operations are (1) of a general economic character, such as reviews of broad trends and developments; (2) of specific, practical application to current business problems. It also serves as the direct liaison between American business interests and the Government. However, activities of the Bureau largely concerned the provision of a quick service of comprehensive reports on commodities and industries at the request of war agencies. The Bureau functions through six agencies—International Trade; Small Business; Domestic Commerce; Business Economics; Field Operations. Director: Amos Taylor.

FOREIGN EXCHANGE. Limited progress towards international monetary reconstruction was achieved during 1946. The International Monetary Fund and the International Bank for Reconstruction and Development completed their organization, but did not begin actual operations. The need for foodstuffs and other supplies for immediate relief in many countries was so great that they had a large import surplus without obtaining equipment for reconstruction. Trade and financial relations between the United States and the rest of the world were still greatly distorted by the aftermath of the war.

Balance of International Payments. During the first year following V-J Day, United States exports aggregated $8,800,000,000, or twice imports of $4,400,000,000. In addition, about $2,000,000,000 of American-owned goods were disposed of abroad through the sale or transfer of military surplus and lend-lease supplies, as well as through distribution by the War Department of civilian supplies in areas occupied by our armed forces.

Foreign countries also remained abnormally dependent upon American shipping and other services, while American tourist expenditures abroad remained subnormal. The United States had an aggregate credit on account of international transactions in goods and services of $7,300,000,000 for the year ended August, 1946, of which $3,200,000,000 was donated through UNRRA, lend-lease, the armed forces and private channels. In addition, the United States Government advanced credits of $2,700,000,000 to foreign countries through the Export-Import Bank, lend-lease and in connection with the sale of Government-owned surplus property abroad. This left $1,400,000,000 due for net exports of goods and services that were paid for with gold, dollar balances and private capital transactions. The abnormal character of our international trade during this first post-war year is illustrated by the fact that exports of crude and manufactured foodstuffs constituted more than 25 percent of the total in the year ended August, 1946, as compared with 10 percent in 1939.

International transactions of the United States during the first three quarters of 1946 were summarized by the Department of Commerce as recorded in Table 1.

U.S. INTERNATIONAL TRANSACTIONS, 1946
[Millions of dollars]

	First Quarter	*Second Quarter*	*Third Quarter*
Receipts:			
Goods and services:			
Goods	2,421	3,573	3,049
Income on investments	144	146	140
Other services	793	600	703
Total goods and services	3,358	4,319	3,892
Unilateral transfers	62	31	39
Long-term capital:			
Movements of United States capital invested abroad	137	185	195
Movements of foreign capital invested in United States		1	
Total long-term capital	137	186	195
Total receipts	3,557	4,536	4,126
Payments:			
Goods and services:			
Goods	1,135	1,220	1,270
Income on investments	36	37	41
Other services	554	363	484
Total goods and services	1,725	1,620	1,795
Unilateral transfers	780	880	942
Long-term capital			
Movements of United States capital invested abroad	490	1,480	1,094
Movements of foreign capital invested in United States	154	45	123
Total long-term capital	644	1,525	1,217
Total payments	3,149	4,025	3,954
Excess of receipts (+) or payments (−):			
Goods and services	+1,633	+2,699	+2,097
Unilateral transfers	−718	−849	−903
Goods and services and unilateral transfers	+915	+1,850	+1,194
Long-term capital	−507	−1,339	−1,022
All transactions	+408	+511	+172
Net flow of funds on gold and short-term capital account:			
Net gold movement	−269	−47	−94
Net movement of United States short-term capital abroad	+102	−166	−240
Net movement of foreign short-term capital in United States	−111	−246	+100
Net inflow (+) or outflow (−)	−278	−459	−234
Errors and omissions	−130	−52	+62

Foreign Credits. The largest international credit operation of the year was formally authorized on July 15, 1946, when a special act of Congress granted Great Britain a line of credit of $3,750,000,000 available until the end of 1951. The British made an initial draft of $300,000,000 upon this credit at once, and drew down additional funds later in the year. Under the terms of the credit, Great Britain was not required to reintroduce free convertibility of the pound sterling until July, 1947. Therefore, she continued to finance a large part of her trade deficit, especially with British countries, by further payments into "blocked sterling" accounts. Beginning with July, 1947, foreign countries that sell to Great Britain will be allowed to convert current sterling receipts into dollars if they so desire, under the terms of the credit agreement.

The Export-Import Bank became the major international financing agency during the year, following Congressional action in July, 1946 increasing its lending authority to $3,500,000,000. A number of commitments were made by the Export-Import Bank for reconstruction loans to Europe, France being the chief beneficiary with $1,195,000,000 of loans and commitments arranged following V-J Day.

A comprehensive financial agreement was reached between the United States and France on May 28, following conferences in Washington with a financial mission headed by Leon Blum. This agreement called for a new Export-Import Bank credit of $650,000,000 at 3 percent, repayable over 25 years, and a line of credit of $720,000,000 at an interest rate of 2 percent. This line of credit would cover lend-lease settlements between the two countries and purchases by the French Government of United States surplus property located in France. In addition, credits were to be given France for the purchase of up to 750,000 tons of merchant shipping from the United States Government.

International Fund and Bank. The inaugural meeting of the Boards of Governors of the International Monetary Fund and the International Bank for Reconstruction and Development was held at Savannah, Georgia, March 8–18. The United States Governor of the two institutions was elected chairman of the Board of Governors in each case, and Washington was made the site of the head offices of the two international agencies. Bylaws were adopted by the Governors to regulate their procedures. Executive directors of the Fund and Bank held their first meetings in May, electing Camille Gutt of Belgium as the Managing Director of the Fund and Eugene Meyer of the United States as President of the Bank. The International Bank formally began to function June 25, and the International Monetary Fund took the initial step towards beginning business by cabling members on September 12 requesting them to communicate the par value of their currencies within thirty days. Thirty-two of thirty-nine member countries notified the Fund that prevailing quotations for their currencies would constitute the inital par values, but China, Greece, Poland, Yugoslavia, Brazil and a few others requested more time for the determination of their initial par values, to which the Fund agreed. The initial parties are shown in Table 2. Actual foreign exchange operations of the International Monetary Fund were scheduled to start March 1, 1947, it was announced.

The National Advisory Council on International Monetary and Financial Problems, established under the terms of the Bretton Woods Act, met repeatedly during the year to consider proposals and applications for foreign loans. The Council coordinated policies governing financial settlements with foreign countries arising out of the war, formulated the views of the United States as regards the operation of the International Monetary Fund and the International Bank for Reconstruction and Development and took steps to prevent expenditure of the proceeds of foreign loans from intensifying shortages of critical materials within this country.

Evidence that the formulation of international lending policy of the United States was giving rise to friction was seen in the unexpected resignation of Eugene Meyer as head of the International Bank for Reconstruction and Development early in December. Mr. Meyer ascribed his resignation to the wish to turn over the presidency to an executive who intended to remain with the institution for some time, but the long delay in announcing a successor indicated that the president of the institution had been placed in an anomalous position because the National Advisory Council on International Monetary and Financial Problems held practical veto power over decisions of the Bank's management.

The Bretton Woods institutions thus did not play a significant practical role in international finance in 1946. Their contribution to monetary stability was still potential rather than actual.

TABLE 2—MONETARY FUND PARITIES

Country	*Currency Unit*	*Currency Units per Troy Oz. of Fine Gold*	*Par Values in U.S. Dollars (Cents)*
Belgium	Franc	1,533.96	2.28167
Bolivia	Boliviano	1,470.00	2.38095
Canada	Dollar	35 000	100 000
Chile	Peso	1,085 00	3 22581
Colombia	Peso	61.2495	57.1433
Costa Rica	Colon	196 525	17.8094
Cuba	Peso	35 0000	100 000
Czechoslovakia	Koruna	1,750 00	2 00000
Denmark	Krone	167.965	20 8376
Ecuador	Sucre	472 500	7.40741
Egypt	Pound	8 46842	413.300
El Salvador	Colon	87.5000	40 0000
Ethiopia	Dollar	86 9565	40 2500
France	Franc	4,168.73	0 839583
Guatemala	Quetzal	35 0000	100 000
Honduras	Lempira	70.0000	50 0000
Iceland	Krona	227.110	15.4111
India	Rupee	115.798	30 2250
Iran	Rial	1,128.75	3 10078
Iraq	Dinar	8.68486	403 000
Luxembourg	Franc	1,533 96	2.28167
Mexico	Peso	169 925	20 5973
Netherlands	Guilder	92 8498	37 6953
Nicaragua	Cordoba	175 000	20 0000
Norway	Krone	173 697	20.1500
Panama	Balboa	35 0000	100 000
Paraguay	Guarani	108 150	32.3625
Peru	Sol	227.500	15 3846
Philippine Commonwealth	Peso	70.0000	50 0000
Union of S. Africa	Pound	8 08486 (or 173s. 8 367d)	403 000
United Kingdom	Pound	8 68486 (or 173s 8 367d)	403.000
United States	Dollar	35 0000	100 000

Foreign Exchanges. Foreign exchange dealings increased as the conduct of American foreign trade was shifted increasingly from Government to private channels and Treasury foreign exchange controls were relaxed. However, rates certified by the Federal Reserve Bank of New York were not available for a number of currencies, and quoted rates were of limited significance in the case of countries like China where inflation was rampant, and where the currency unit was traded in abroad at only a fraction of the official rate.

Canada reduced her official buying rate for one U.S. dollar from 1.10 to 1.00 Canadian dollar on July 5, 1946. This action was taken to prevent a rise in Canadian prices following the end of price control in the United States. Since Canada retained price ceilings, it was felt that it would be easier to make them effective if the Canadian dollar rate was raised. While the official quotation of the Canadian dollar was lifted to parity with the American dollar, the free market rate continued at a discount of several cents because offerings of Dominion currency in the open market in this country exceeded the demand. The Swedish Riksbank on July 13 reduced its buying rate for the U.S. dollar from 4.20 to 3.60 kronor, also for the purpose of protecting the Swedish economy from the inflationary price rise in the United States. Brazil abolished the official rate for the cruzeiro on July 22, and thereafter only the lower free rate was quoted.

Market quotations at the end of December for currencies on which certified rates were available in New York, compared with average quotations for the month of December, 1945, are shown in Table 3.

Gold and Silver. The decline in the monetary stock of gold of the United States that marked the war period was reversed in 1946. Moderate imports and releases from earmarked gold occurred as the return of foreign trade to private channels made it necessary for foreign countries to pay in cash for a larger proportion of their purchases in the United

States. During the war, lend-lease had made the balance of payments of the United States unfavorable on a cash basis.

TABLE 3—FOREIGN EXCHANGE RATES

(Average of noon buying rates in New York for cable transfers—in cents per unit of foreign currency)

	1945	1946
Argentina (peso)		
Official	29 773	29.773
Special export	25.125	25.125
Australia (pound)		
Free	321 41	321 21
Belgium (franc)	2.2839	2.2791
Brazil (cruzeiro)		
Free	5 1802	5 4053
British India (rupee)	30.122	30.152
Canada (dollar)		
Official	90.909	100 000
Free	90 725	94 867
Colombia (peso)	56.980	57 140
Czechoslovakia (koruna) [a]	.....	2.0060
Denmark (krone) [b]	....	20.869
France (franc)	1.7822	8407
Mexico (peso)	20 579	20 587
Netherlands (guilder)	37 933	37.789
New Zealand (pound)	322.70	322 50
Norway (krone) [b]	....	20.161
Portugal (escudo) [b]	.....	4 0501
South Africa (pound)	400.50	400.50
Spain (peseta) [b]	. .	9 132
Sweden (krona) [b]	.	27 821
Switzerland (franc) [b]	. .	23 363
United Kingdom (pound)		
Free	403 37	403 07
Uruguay (peso)		
Controlled	65 830	65 830
Non-controlled	56 290	56 272

[a] Trading resumed March, 1946 [b] Trading resumed February, 1946.

The Treasury's buying price for new domestically mined silver was raised from 71.11 cents to 90.5 cents a fine ounce by legislation signed by the President on July 31, 1946. Congressional enactment of this law broke the deadlock over the price of silver which had created a severe shortage of the metal in industry in the first seven months of the year. The market price of silver rose to 90 cents for a time, but by the end of the year had declined below this level on offerings from abroad and hesitation of domestic consumers to buy at this high price. The Congressional silver bloc had hoped that a huge foreign demand for silver would be generated because India, Great Britain, the Netherlands and other countries had borrowed 410,000,000 ounces of the white metal from the Treasury under lend-lease, which had to be returned within five to seven years after the end of the war emergency. But, as has happened before, instead of paying a high price for silver these countries took steps to end monetary use of the metal so as to secure a stock of silver for shipment to this country. India substituted nickel tokens for silver coins of small denominations, and Great Britain passed the Recoinage Act replacing all silver coins with others of a copper-nickel alloy. The high price of silver in New York also attracted offerings of the metal from Russia, Mexico and Spain in the American market.

JULES I. BOGEN.

FOREIGN FUNDS CONTROL. A division of the U.S. Department of the Treasury, established in 1940 to carry out the economic and financial warfare programs of the Department under the Trading with the Enemy Act, as amended. In the post-hostilities period the Control has a threefold program: (1) to uncover cloaked enemy interests and establish measures for the protection of claims of the Federal Government and of private American creditors in blocked assets; (2) to eliminate existing German and Japanese economic and financial influence in this country and prevent postwar use of United States banking facilities by enemy interests; and (3) to develop the necessary procedures for licensing the reopening of trade, remittances, and general financial and commercial relations with former enemy countries consistent with the Government's objectives in controlling their post-war developments. Director in 1946: Orvis A. Schmidt.

FOREIGN LIQUIDATION COMMISSIONER, Office of. The Office of the Foreign Liquidation Commissioner of the Department of State was created by Executive Order effective October 20, 1945, by merger of the Office of the Army-Navy Liquidation Commissioner and the lend-lease functions of the former Foreign Economic Administration. Mr. Thomas B. McCabe was named Commissioner by the Secretary of State. Mr. McCabe resigned on September 20, 1946, and the Secretary of State then designated Major General Donald H. Connolly as Commissioner and Mr. Chester T. Lane as Deputy Commissioner and Lend-Lease Administrator.

This office is the disposal agency for United States surplus property located outside the continental United States, Hawaii, Alaska (including the Aleutian Islands), Puerto Rico, and the Virgin Islands. The Surplus Property Act of 1944, as amended, provides in Section 32(b) that surplus disposals in the areas under the jurisdiction of this Office may be exempted from some or all of the provisions of the Act. The exemptions under this authorization are set forth in FLC Regulation 8, issued under the Act. Surplus property originally produced in the United States, under the Act and regulations, may be reimported only (a) by veterans and members of the armed forces for their personal use, (b) for the purpose of reconditioning for re-export, or (c) if declared essential to the domestic economy by the Office of War Mobilization and Reconversion and entered on Schedule A pursuant to Order 6, issued under FLC Regulation 8. Care, handling, and storage of surplus property is the responsibility of the owning agency until removed by a purchaser or abandoned. Except for bulk sales to foreign governments, disposals are negotiated by sales executed by field commissioners located in London, Paris, Rome, Cairo, Teheran, Manila, Shanghai, Tokyo, Guam, Sydney, Rio de Janeiro, Balboa, Recife, Trinidad, Reykjavik (Iceland), and St. John's (Newfoundland). In addition, a field commissioner for Military Programs and a field commissioner for Canada and North Atlantic areas operate through the Washington office. The Washington office formulates the policies and coordinates the global sales of the various field offices. Property is generally sold on a "where is, as is" basis, and therefore prospective customers are advised to inspect property at its location. As of December 31, 1946, property having an original cost of $8,800,000,000 had been declared to the OFLC as surplus and it is tentatively estimated that approximately $2,000,000,000 additional property will be declared surplus overseas. $7,437,000,000 worth of overseas surplus had been disposed of on December 31. Total realizations as of December 31, in the form of cash, credit, and foreign currency, amounted to $1,678,000,000.

The Lend-Lease Administrator is responsible for the final winding up of the lend-lease program, which has involved over fifty billion dollars' worth of lend-lease aid material since March 11, 1941. This involves directing the completion of "pipeline" deliveries (i.e. deliveries of goods which had been requisitioned under the Lend-Lease Act as of September 2, 1945 and which were later sold

to the requisitioning countries) and supervision of the negotiation of final lend-lease settlements. As of December 31, 1946, final settlements had been negotiated with the United Kingdom, France, Belgium, India, Australia, New Zealand, and Turkey. A number of settlement agreements with other major countries receiving lend-lease aid remain to be negotiated. When the material in the pipelines has been delivered, an operation involving a billion and a quarter dollars' worth of goods which were programmed but undelivered as of V-J Day will be completed.

DONALD H. CONNOLLY.

FOREST SERVICE, United States. A reappraisal of the forest situation in the United States, to bring up to date facts and figures on the extent and condition of the country's forest resource, was completed by the Forest Service in 1946. The survey indicated that total volume of standing saw-timber in the United States had declined 44 percent in 36 years. There had been a 9 percent decrease since 1938.

A marked decline in quality as well as in volume of timber growth also was reported. Trees of the more valuable kinds and of large sizes were becoming increasingly scarce; large areas of timberland had been taken over by inferior species or scrubby growth.

The Forest Service estimated the nation's total stand of saw-timber at 1,601 billion board feet. (Saw-timber means trees large enough and of suitable species to be sawed into lumber, whether used for that purpose or not.) More than half of the saw-timber was in what is left of the virgin forests, practically all of which are in the western states; and about one-third of the remaining virgin timber is of relatively low value types, such as lodgepole pine.

Total amount of wood of all kinds, including cordwood, taken from the forests annually for lumber, pulpwood, fuelwood, and other products was estimated at 12.2 billion cubic feet. Losses from fires, insects and diseases, and windstorms amounted to 1.5 billion cubic feet. Total annual drain on the forests, therefore, was 13.7 billion cubic feet. This was nearly balanced by an annual growth of 13.4 billion cubic feet, although it was pointed out that much of the drain is of high quality material, whereas the growth is generally of poorer quality.

However, in trees of saw-timber size, upon which most of the forest industries depend, annual drain was placed at 53.9 billion board feet, while annual growth was only 35.3 billion board feet. Sawtimber each year was thus being replaced by growth only two-thirds as fast as it was being consumed.

Because of the growing scarcity of accessible, merchantable standing timber, the Forest Service said, the United States faces several decades of limited supply of forest products. The timber shortage would be prolonged indefinitely, it said, unless an adequate forest growing stock was built up. For a strong, expanding national economy, the Forest Service declared, sound forest policy should look to a timber growing stock that would yield an annual crop twice as great as present saw-timber growth.

The Forest Service reappraisal included a survey of prevailing methods of timber-cutting throughout the United States. Only 23 percent of all cutting on commercial forest lands was found to be good; 25 percent rated as fair; and 52 percent was poor to destructive. Cutting practice was classed as good when it left the forest in condition for vigorous growth of desirable species in the immediate future. Poor cutting practice was that which stripped the land of all present values without regard to the future, cut down young stands before they had reached the period of most productive growth, or "high-graded" the stand of the best species, leaving a residue of poor, low-value trees.

On industrial and other large forest holdings, 29 percent of the cutting was good or better; 32 percent poor to destructive. On forest lands in small ownerships (under 5,000 acres) only 4 percent of all cutting was good, and 71 percent was poor or worse. Since approximately 80 percent of the total commercial forest acreage in private ownership is in small holdings, it was apparent that here was the biggest problem. Commercial forest land in small holdings is divided among some 4,200,000 owners, more than 3,000,000 of whom are farmers.

The cutting practices on public forest lands were notably superior to those on private lands. On the national forests, 80 percent of the cutting was good or better; 19 percent fair; and only 1 percent was classed as poor. Cutting practice on state and local government forest lands rated above the average. Public forests, however, comprise only about one-fourth of the nation's total commercial forest area, and therefore cannot alone assure the country an adequate future supply of timber.

"Our nation's forest lands can be made eventually to furnish in perpetuity all the forest products we are likely to need, and even help in some measure to supply the needs of other countries less fortunate," said Lyle F. Watts, Chief of the Forest Service, "But the downward trend of our forest resource must be reversed. The scars of past misuse must be healed. Prompt action is needed to minimize the pinch of timber shortage in the years immediately ahead, and assure abundant supplies of timber for the more distant future."

Annual Report. The Chief of the Forest Service, in his annual report for 1946, listed the following as major needs in a program to build up an adequate growing stock of timber: more intensive protection against fire, insects, and tree diseases; more planting to restore depleted lands to productivity; less waste in the utilization of timber crops; and better cutting practice and forest management on all lands. Specific measures recommended included public control of timber-cutting sufficient to prevent the use of destructive practices and to keep forest lands in reasonably productive condition; increased public aids, through cooperative fire protection, reforestation, technical advice, and research, to encourage better management of private forest lands and more efficient utilization of timber crops; public purchase and management of critical watershed and other areas vital to the public interest, and of forest lands so depleted or so low in productivity as to be unattractive for private restoration and development. Public ownership was declared to be the only practicable way to assure stable ownership and satisfactory management for a large acreage that is obviously not suited to, or destined for, permanent private forestry.

The annual report also recommended an expanded program of forest restoration and improvement work, including public reforestation projects, construction of additional protection facilities, and measures to increase timber growth. Up to the present time, it said, virgin and natural second-growth timber has provided almost the entire supply of wood in the United States. Man has taken only a very minor hand in growing the trees. Natural processes however, are slow and do not always

result in maximum returns. By certain cultural methods, foresters can speed up growth and yield of desired products. "Cleanings" in young stands can favor desired species. Thinnings can be made to get the best spacing and increase growth rate of individual trees as much as 100 percent. "Sanitation cuttings" can remove diseased trees or trees of poor form that are wasting good growing space. Pruning of pole-size timber will result in growth of knot-free wood at a much younger age than would naturally occur. The report said there were several million acres in the national forests alone where timber stand improvement work would be a good investment.

National Forests. In recent years, the national forests administered by the Forest Service have supplied about 10 percent of the country's yearly lumber cut. With full development of their timber-growing capacity, the Forest Service believes the sustained annual output of the national forests can eventually be more than double. National forest timber is sold under a sustained yield policy, in which annual cut is kept in approximate balance with annual growth. With the growing scarcity of merchantable private timber, there was increasing pressure for liquidation of government-owned timber stands. The Forest Service adhered to its sustained yield policy, although limited overcutting was authorized where it could be done without jeopardizing the future welfare of communities dependent upon the national forest timber resource.

To help meet urgent postwar needs for lumber for housing, however, the Forest Service started an enlarged program of road construction to provide access to isolated stands of mature timber. A Congressional appropriation of $7,000,000 for this work was supplemented by funds made available by the National Housing Agency.

In the last prewar year, recreation areas in the national forests were used by more than 10,000,000 visitors. Recreational use during 1946 was at rates exceeding the prewar figure.

More than 80,000,000 acres of national forest land are suitable for livestock grazing. Seasonal grazing on these rangelands plays an important part in the country's production of meat, wool, and leather. In 1946, the Forest Service issued permits to 30,330 owners to graze 1,290,332 cattle and horses and 3,896,258 sheep and goats. Many of the national forest ranges, however, were in run-down condition as a result of recurrent droughts or too heavy grazing in the past. The Forest Service is endeavoring to build up the depleted ranges through range reseeding, better handling of the livestock, or gradual adjustments in seasons and numbers of animals. Techniques for successful reseeding of deteriorated rangelands have been developed by the Forest Service, which hold great promise. Experimental reseeding in Utah and Southern Idaho increased range carrying capacity ten-fold.

With the cooperation of the Army Air Force, the Forest Service conducted extensive tests with helicopters to determine the possibilities for their use in fire control and other forest work. The tests, conducted in mountainous terrain in Southern California, indicated that aircraft of the hovering type have large possibilities for use in quick delivery of men and supplies to fires in isolated, roadless areas; for game counts, aerial mapping, scouting for infestations of insects and diseases, and for many other activities in forest management and protection. Chief drawback was the limited cargo or passenger carrying capacity of existing helicopter models.

First Chief Forester. The first Chief of the Forest Service, Gifford Pinchot, died October 4, 1946, at the age of 81. America's first professional forester and pioneer crusader for conservation, Pinchot contributed greatly to the growth of the conservation movement during the past half century. His efforts were responsible in large measure for the development of the profession of forestry and of technical forestry education in the United States. As Chief of the Forest Service from 1905 to 1910, he laid the groundwork for the federal forestry program and set up many of the basic principles which guide that program today.

World Forestry Organization. The Forest Service gave active support to the international forestry agency which was set up in 1946 as a Branch of Forestry and Forest Products under the United Nations Food and Agriculture Organization. Chief Forester Watts served as a member of the international advisory committee which helped establish the Branch. Headquarters for the new world forestry agency were set up in Washington, D.C., with Marcel LeLoup of France, formerly Chief of the French Department of Waters and Forests, as Director General. Stuart Bevier Show of the United States Forest Service, for the past twenty years Regional Forester in charge of the national forests of California, was named deputy director and chief silviculturist. The organization planned to conduct surveys, establish world-wide forestry statistical services, provide technical advice to member governments, promote exchange of scientific information and personnel, and in other ways promote sound management and use of forest resources throughout the world.

Personnel Changes. During the year, the Chief Forester announced a number of changes in key personnel in the Forest Service organization. Perry A. Thompson, formerly Chief of the Division of Fire Control, was named Regional Forester for California. Philip V. Woodhead was placed in charge of the Southwestern Region (Arizona and New Mexico) and J. Herbert Stone was named Regional Forester for the Southern Region (Southeastern and Gulf States). Joseph C. Kircher, formerly in charge of the Southern Region, was loaned to the American Military Government as a forestry specialist in occupied Germany. George M. Hunt was named Director of the Forest Products Laboratory at Madison, Wisconsin.

Publications. With the cooperation of the Charles Lathrop Pack Forestry Foundation, the Forest Service in 1946 published a monograph, *Longleaf Pine*, which brought to culmination years of research work at the Southern Forest Experiment Station. The publication brought together all that was known to date on the characteristics and use of this important tree of the southern states, and its management for timber and naval stores. Another Forest Service publication of the year was *Water and Our Forests* (United States Department of Agriculture Miscellaneous Publication No. 600), a popular bulletin describing the relation of forests to water supplies and flood control.

CHARLES E. RANDALL.

FOREIGN-TRADE ZONES BOARD. A Board created under the Department of Commerce in 1934 to provide for the establishment, operation, and maintenance of foreign-trade zones in ports of entry of the United States. The Chairman is the Secretary of Commerce. The Staten Island Zone was reestablished during 1946.

FORMOSA (Taiwan). An island near the southeast coast of China. It was under Japanese control from

1895, when it was ceded by the Chinese to the Japanese, until V-J Day in September, 1945, after which the Chinese resumed the administration of the island. Total area, including the Pescadores: 13,889 square miles. Total population (Dec. 31, 1940): 6,077,478 (91.5 percent Formosan Chinese, 6 percent Japanese, and 2.5 percent aborigines). Chief towns (1935 census): Taihoku (capital), 278,446; Tainan, 111,959; Keelung, 84,978; Takao, 83,735. Governor General: General Chen Yi (appointed November 1945).

Events, 1946. Formosa emerged from the Japanese occupation into a domestic economy burdened by a severe inflation and a shortage of trained reconstruction personnel. In late August the Chinese Government reported that General Chen's provincial administration was attempting to cover a budgetary deficit equivalent to U.S. $57,000,000 by floating a public loan.

The efforts to revive Formosa's economy bore little success during 1946. After the return of the Chinese Administration, it was reported that of the 500 factories and mines taken from Japanese officials and civilians, 300 had been sold and 200 were in the process of nationalization. Sugar production reached only 86,000 tons in the period from August 1945 to August 1946. In normal times, Formosa was capable of producing more than 1,000,000 tons annually. Similarly, Formosa's coal output during early 1946 was 90,000 tons a month, compared to a monthly maximum 200,000 tons. Rice production in 1946 was estimated at 11,948,000 koku (5,119 bushels) compared to 14,757,000 in 1942.

The damage inflicted by the United States Air Forces made Formosa's industrial recovery a serious problem. Factories were primary targets during the wartime air raids. Installations and warehouses at the important harbors of Kaohsuing and Keelung were more than 90 percent destroyed.

FOUNDATIONS. As affecting the stability or even the existence of the structures they support, foundation works are of great importance. But being hidden and inaccessible their conditions can be ascertained only by difficult and expensive work. Mistakes or defects are thus left for possible future development. In these days careful study is given to the soils in which or on which bridges, large buildings, or other important structures are to be founded. In preparing to design some institutional buildings, in 1946, the State authorities of New York let a contract for thorough soil exploration and foundation investigation.

Design of foundations is a separate problem for each individual case and much ingenuity is shown in devising means of meeting requirements and avoiding methods of prohibitive cost. For example, soundings and borings for a New York building failed to disclose serious conditions which developed as construction proceeded, including deep masses of old concrete that had been deposited as filling in previous years. Special piles and pile-driving methods had to be devised in order to get the foundations through this obstruction.

Steel H-piles, 200 ft. long, driven thirteen at a time, form the foundations for a car-ferry pier in New York harbor. A rather new idea in pile driving is the use of an air jet, alone or in combination with the more usual water jet.

Failure of foundations may be disastrous, as in two such cases in 1946. In the harbor at Philadelphia, a large private shipping pier, surmounted by a warehouse, collapsed suddenly and sank into the water, with loss of life and property. This was attributed to abnormally high tides which weakened the holding of the piles in the soft ground. In the case of a river bridge, one of the concrete piers settled and shifted out of position, dropping two spans. Here the failure was attributed to the deepening of the channel by dredging, thus exposing the heads of the foundation piles to the attacks of marine boring insects.

Foundation work often includes hazards, especially where excavation is concerned. For such work under compressed air, the use of helium-oxygen gas has been introduced as a measure of safety. There is also the hazard of gas pockets in the soil, and several such cases have occurred in Chicago in the sinking of caissons or wells for concrete piers. Such a case in September caused the deaths of three men working in a four-foot well about 52 feet deep.

A type of foundation that is being used to an increasing extent is made by driving pipes or tubes of steel or concrete, to be filled later with concrete. A variation of this system is the driving of steel or concrete shells some five feet in diameter, to be cleaned out and filled with concrete.

Deep foundations are of special importance. Concrete caissons for the Criminal Courts Building, in New York City, reached depths of 126 to 133 ft., and the piers of the new Topock bridge of the Santa Fe Railroad (See YEAR BOOK, 1945, p. 76) reached rock at 123 ft. A wharf at the San Francisco shipbuilding yard of the Bethlehem Steel Co. is founded on 108 steel cylinders, three feet in diameter, sunk to depths of nearly 200 feet. Foundations of a bridge over the Elk River in Oklahoma consist of pairs of concrete shafts built in open pits 45 to 59 feet deep. Column foundations for a factory in which heavy loads are carried by conveyors suspended from the roof framing, were formed by drilling holes three feet in diameter for filling with concrete. As the soil is a hard clay, the bottoms of the holes were enlarged by belling or tapering out to a base diameter of five feet, thus reducing the load per square foot. A pier at Algiers, La., is carried by pairs of concrete cylinders four feet and 4½ feet in diameter, in eight-feet lengths, extending above ground as supports for a floor-framing or deck of concrete caps and beams. In Europe, also, there is extensive use of foundations of steel or concrete cylinders three to four feet in diameter, sunk by loading. See BRIDGES, BUILDINGS.

E. E. RUSSELL TRATMAN.

FRANCE. A republic in western Europe. Area: 212,659 square miles. The estimated population (July, 1946) was 39,700,000, compared with (1936 census) 41,907,056. Vital statistics (exclusive of Alsace-Lorraine and Corsica) for 1943 (rate per 1,000); births 15.9, deaths 16.4; infant mortality 75 (deaths under one year per 1,000 live births).

Chief cities (July 1, 1945): Paris (capital) 2,877,992, Marseille 608,507, Lyon 468,159, Bordeaux 248,973, Nice 225,918, Toulouse 273,455, Lille 178,618, Nantes 195,887, Strasbourg 154,981, Saint-Etienne 174,987, Le Havre 105,712, Toulon 121,388, Rouen 108,968, Nancy 112,323, Reims 108,819, Clermont-Ferrand 124,456.

Education and Religion. No recent statistics on education are available. The French Government in 1945 announced various educational reforms. Among them were the creation of the National School of Government Service to replace the Free School of Political Science and the establishment of a new first grade in secondary schools. Roman Catholicism is the religious faith of most of the

people; there were about one million Protestants.

Production. In prewar times 38 percent of the population was engaged in agriculture, 31 percent in industry, and 11.5 percent in commerce. Land used for agricultural purposes in 1938 was equal to 62 percent of the total area. Exclusive of Alsace-Lorraine the yields of the main field crops during 1945 (in metric tons) were: wheat 4,201,000, potatoes 5,194,000 (1945), sugar beets 4,085,000. Other major branches of agriculture are livestock raising, dairying, vineyards, and fruit cultivation. In 1945 the output of wine totalled 27,520,000 hectolitres. Livestock (1945) 14,800,000 cattle, 6,900,000 sheep, 5,900,000 pigs, and 2,300,000 horses. Meat output (1945 est.): 1,000,000 tons.

Mineral and metallurgical output in 1945 (exclusive of Alsace-Lorraine) was as follows (in metric tons): coal 24,816,000, pig iron and ferro-alloys 1,184,000, steel 1,608,000. In April 1946 the output of coal totaled 4,043,000 tons. The production of electricity (exclusive of Alsace-Lorraine) in 1945 totaled 17,200 million kwh. Based on the prewar value of output, the leading manufacturing industries were metal working, machinery, and metal products; food; chemicals; textiles; metallurgy; embankment work and stone construction; wood; rubber; paper, and cardboard; leather and hides.

Defense. Plans for the reorganization of the French armed forces call for a minimum of 65,000 men in the navy and 500,000 men in the army. According to a statement released (Dec. 28, 1945) by the French Ministry of Information, Gen. Jean de Tassigny has asked for 105,000 men to be stationed in France, 100,000 in North Africa, 120,000 in the Far East and the colonies, 120,000 troops for the occupation of Germany, and 55,000 military police. Men will be called for compulsory military service at the age of 19 and will serve for a period of 13 to 14 months.

Foreign Trade. As a result of the occupation of France by German armed forces during World War II, not many products were available for export in 1945. In the twelve months of 1945 the value of imports was 54,839,766,000 francs; exports, 11,396,858,000 francs. For the year 1944 imports were valued at 7,740,000,000 francs; exports, 23,964,000,000 francs. For the period January–July 1946, imports were valued at 129,623,455,000 francs and exports at 41,600,098,000 francs. The principal imports into France for consumption included wheat, corn, rice, vegetables, fruits and nuts, sugar, wines, hides and skins, cotton, wool, wood and cork, wood pulp, rubber, coal, petroleum, copper, machinery, oil-seeds, and chemical dyes. In prewar years the chief export products included wine, brandy and liqueurs, hides and skins, wool, cotton fabrics, rayon and silk fabrics, paper and cardboard, iron ore, iron and steel, metal manufactures, machinery, automobiles, vegetable oils, chemical dyes, and perfumery.

Finance. France's budget for 1946, according to estimates submitted to the finance commission of the Assembly on Dec. 6, 1945, will total 464 billion francs, including 200 billion for civil expenditure, 59 billion for liquidation of the war, 125 billion for military costs, and 80 billion for reconstruction. Budget (1945): revenue 172 billion francs; expenditure 384.3 billion francs. In 1944 revenue totaled 123.46 billion francs; expenditure 364.56 billion francs, including German occupation charges amounting to 198.7 billion francs. The internal public debt of France increased from 445.7 billion francs on Aug. 31, 1939, to 1,734.6 billion francs on Apr. 30, 1945.

Currency notes in circulation rose from 151.3 billion francs on Dec. 31, 1939, to 496.3 billion francs on Sept. 30, 1945. Notes of the Bank of France had to be presented for exchange against new notes between June 4 and 15, 1945. After that date old notes ceased to be legal tender.

The official exchange rates for the franc in 1945 (until December 27) were: 49.53 francs equal U.S.$1; 200 francs equal £1 sterling. On Dec. 27, 1945, by a vote of 506 to 44, the National Constituent Assembly adopted a law for the devaluation of the franc, as follows: The French (metropolitan) franc was pegged at 119.10669 francs = U.S.$1 and 480 francs = £1 sterling.

The Bank of France and four large deposit banks (Crédit Lyonnais, Société Générale, Comptoir National d'Escompte, and Crédit Industriel et Commercial) were transferred to state control on Jan. 1, 1946. Local and regional banks were not subject to nationalization, nor were commercial banks engaged primarily in foreign operations.

Transportation. The highway network of France extends for a total of 2,072,027 miles, made up of 49,821 miles of national roads controlled by the state, 155,831 miles of departmental roads administered by the departments, and 1,866,375 miles of local roads maintained by the communes. The main railway lines in France are operated by an autonomous government corporation organized through the amalgamation in 1938 of two systems owned by the government and four by private interests representing a total of 39,176 miles of operated trackage, mainly of standard gage. In addition there are a number of small private railways. On Jan. 1, 1946, 7,343 steam and 546 electric locomotives, 269,200 freight cars, and 14,300 passenger cars were in immediate working condition. French airlines operate networks in metropolitan France, and to North Africa, West Africa, the Near East, Madagascar, and other points in the world. There are 7,400 miles of navigable inland waterways, for the transportation of heavy bulk commodities. Fifty million metric tons were loaded on inland waterways in prewar years.

Events: The Fourth Republic. France in 1946 presented a spectacle of further frustration in foreign affairs and continued poverty and dissension at home, alleviated only slightly by gradual economic recovery and hesitant decisions regarding the structure of the new State. Gen. Charles de Gaulle, hero of the dark years, passed from the scene as an effective political figure. No one of comparable stature replaced him. Bitter rivalry and uneasy equilibrium among the MRP (*Mouvement Republicain Populaire*), the Communists, and the Socialists precluded stable unity and in the end brought to the helm an aging and discredited leader of a defeated party. The nation moved steadily toward a socialized economy, with the Communists emerging as the largest and most dynamic political group. The painful process of constitution-drafting led finally to a new charter. But the spirit of the new regime evoked troubled memories of the factions and feuds of the wasted years before the débâcle.

Exit De Gaulle. On January 20, 1946, De Gaulle, for the third time in nine weeks, resigned as President-Premier of the Provisional Government. His decision, which he pronounced "irrevocable," was a protest against Leftist demands for reduced military appropriations and for an omnipotent parliament. His public rôle thereafter followed a familiar pattern in the Third Republic whereby many leaders who had entered politics as radicals closed their careers as reactionaries.

The General remained in seclusion, but his more ardent followers soon resumed political activity under the leadership of Réné Capitant, representative of Strasbourg in the Assembly. De Gaulle's former Minister of the Interior, Adrien Tixier, died on February 18. Col. François de la Rocque, erstwhile leader of the pre-war *Croix de Feu*, many of whose members looked to De Gaulle as a new bulwark against Communism, died on April 28. The General's Secretary, Gaston Palewski, was reported in the spring to be urging him to return to politics. In early May De Gaulle cancelled an announced address in the Vendée, with some attributing his decision to charges of conspiracy and embezzlement brought against André de Wavrin, former head of De Gaulle's secret service. (Wavrin was dismissed from the Army, expelled from the Legion of Honor and subjected to partial confiscation of his property in late August.) On June 16 the General spoke in Bayeux in favor of a bicameral parliament and a "legitimate State," using the first person plural to refer to himself as had Marshal Pétain and the French kings. On July 26 he spoke again at Bar-le-Duc to urge an Anglo-French entente as a balance between America and Russia.

The formation of the "Gaullist Union for the Fourth Republic" was announced on August 10, with Capitant (defeated for re-election to the Assembly in June) as its chairman. The organization placed itself "resolutely above political parties," but in November nominated and elected a few candidates to the Assembly. De Gaulle on August 27 denounced the second draft constitution as providing for "weak government by Assembly." He was criticized by André Philip for meddling in politics without assuming responsibility. De Gaulle issued further denunciations of the draft on September 19 and October 9 and 11, thus breaking with the MRP. Following its adoption, he urged the election of deputies in November who favored its revision, contending that the document would produce impotence and anarchy, followed by despotism. By autumn De Gaulle was regarded as a "reactionary" by the Communists and Socialists, viewed with suspicion by the MRP, and ardently supported by the elements that had once backed Vichy. Only in the event of a sharp Right swing of French opinion could there be any prospect of his returning to an influential role.

Liquidating Vichy. Trials of collaborationists continued throughout the year, but at a slower tempo. Hubert Lagardelle, Pétain's Minister of Labor, was condemned on July 17 to national unworthiness, confiscation of property, and life imprisonment at hard labor. His major offense was the deportation of French workers to Germany. Former Premier Pierre-Étienne Flandin, Vichy Foreign Minister from December 13, 1940, to February 8, 1941, was brought to trial on July 23 in the Palace of Versailles on a collaboration charge. He lectured the jury for four hours on diplomatic history and was praised as pro-ally by defense witness Randolph Churchill. On July 26 the High Court of Justice condemned him to five years of national unworthiness, but at once annulled the sentence in view of his imprisonment since December, 1943.

Gouin Cabinet. De Gaulle's successor in the Premiership was Socialist Félix Gouin, Marseilles lawyer, chosen by the Assembly on January 23. His three-party Cabinet was constituted as follows:

Premier and Minister of National Defense—Félix Gouin, Socialist.
Vice-Premiers and Ministers of State—Francisque Gay, MRP, and Maurice Thorez, Communist.
Finance—André Philip, Socialist.
Foreign Affairs—Georges Bidault, MRP.
Justice—Pierre-Henri Teitgen, MRP.
Interior—André Le Troequer, Socialist.
Armies—Edouard Michelet, MRP.
Armament—Charles Tillon, Communist.
Agriculture—Pierre Tanguy-Prigent, Socialist.
Industrial Production—Marcel Paul, Communist.
Education—Marcel Naegelen, Socialist.
Public Works and Transport—Jules Moch, Socialist.
Communications—Jean Letourneau, MRP.
Colonies—Marius Moutet, Socialist.
Labor—Ambroise Croizat, Communist.
Public Health—Robert Prigent, MRP.
Reconstruction—François Billoux, Communist.
Veterans Affairs—Laurent Casanova, Communist.
Food—Henri Longchambon, non-party.

Gouin warned the nation that the franc was in peril because of an anticipated deficit of 309 billion francs for the current fiscal year. He urged a reduction of the budget, particularly in military expenditures, stabilization of wages and prices, and a generally deflationary policy. At the end of January the Ministry of Colonies was renamed the "Ministry of France Overseas" as a symbol of the intention of the Cabinet to replace the former type of colonial administration by a "French Union" of self-governing units. At the same time it was decided to send Léon Blum to Washington to seek a loan. The Assembly voted confidence and authorized the Cabinet to reduce the budget without a parliamentary vote. In mid-February a reduced military program was announced, envisaging an Army of 400,000, an Air Force of 50,000, and a Navy of 45,000.

Blum reached Washington on March 16 and was soon joined by Jean Monnet, chairman of the General Planning Board. Bidault hinted that failure to secure a loan might oblige France to seek aid from Moscow, which had already agreed to ship wheat. Blum, speaking of his country as "a nation twice ruined in thirty years," indicated that France needed $5,000,000,000 worth of American goods to modernize its industry. While the Socialists sought to placate Washington and London by abandoning demands for the dismemberment of Germany, Bidault reiterated that French security required the political separation of the Rhineland and Ruhr from the Reich. On May 1 Secretary Byrnes, in Paris for the meeting of the Council of Foreign Ministers, informed Bidault that the United States would grant financial aid.

American Loan. On May 28, Blum and Byrnes, now back in Washington, signed documents by which credits totalling $1,400,000,000 were extended to France, including $720,000,000 for 35 years at 2%, with repayments of principal not to begin until July 1, 1951, and $650,000,000 from the Export-Import Bank for 25 years at 3%. The accord (text in *New York Times*, May 29, 1946) provided for a settlement of lend-lease obligations and sundry other claims and pledged France to make tariff concessions and espouse American principles of non-discriminatory multilateral trade. Gouin expressed gratitude. On his return to Paris, Blum denied that any military or political conditions were attached.

The accords were ratified by the Assembly, unanimously, on August 1 in a spirit of resignation rather than enthusiasm. Bidault warned that austerity would continue and that France must buy American tools and equipment, not consumers' goods. By November 15, the Ministry of Finance estimated that $457,000,000 of the American credits had already been extended for American imports and that the planned purchase of $900,000,000 worth of American goods would be completed during 1947. Whether the *quid* of French renunciation of autonomy in commercial policy would in fact result in the *quo* of restored productivity on a

scale which would promote prosperity and enable repayment to be made was still a matter of controversy at the turn of the year.

Constitution Rejected. Meanwhile the political pot boiled violently during the spring in the sequel to the completion by the Assembly on April 19 of the draft of a new basic law. The final vote was 309 to 249, with Socialists and Communists approving and the MRP and minor Right parties dissenting. The charter provided for a unicameral National Assembly, to be chosen for five years by "universal, direct, equal, and secret suffrage" of all citizens twenty years of age or older. A Council of the French Union, to be chosen for four years by the General Councils of the departments and overseas territories, was to be given purely advisory powers. The President, to be elected for seven years by a two-thirds vote of the Assembly, was to occupy a symbolic position comparable to that of the President of the Third Republic. The instability of Cabinets, always the bane of French politics, was to be remedied by restrictions on votes of confidence. Dissolution of the Assembly, to be followed by new elections, could be ordered by majority of the deputies or by the Cabinet with the consent of the Assembly's President, but the latter procedure was inapplicable during the first half of the five-year legislative term. The new Bill of Rights included *habeas corpus* and the right to employment and to public support in sickness and old age. (Text in *New York Times*, April 23, 1946.)

In the referendum campaign on the new Constitution, Maurice Schumann and other MRP leaders urged a "No" vote on the ground that in the absence of checks-and-balances the proposed structure would eventuate in irresponsible legislative omnipotence. Communists and Socialists favored the draft, but all three major parties agreed to continue their coalition. The League of the Rights of Man endorsed the charter as did the General Confederation of Labor, which urged its adoption "to defeat Fascism, put the trusts out of power, and insure the reconstruction of rations and supplies for the working class." On April 24 the Assembly voted, 487 to 63, to nationalize fifty of the larger French insurance companies, with shareholders to receive 3% government bonds in compensation. Gouin campaigned actively for the Constitution. The vote of May 5 resulted in 9,453,175 votes in favor and 10,583,724 against.

Election of June 2. Under existing law the defeat of the charter required the election of a new Constituent Assembly to draft another. The three parties of the coalition carried on together in the Cabinet but indulged in increasingly vehement public attacks upon one another. The result of the voting on June 2 in terms of deputies elected, as compared with party strength after the election of October 21, 1945, is shown in the accompanying table.

Party	*Oct. 21, 1945*	*June 2 1946*
MRP	141	160
Communists	148	146
Socialists	134	115
Radicals and Left Groups	35	39
Right groups	62	62

The victory of the MRP was substantial, representing an increase in popular votes from 4,580,222 to 5,589,213. The slight decline of Communist deputies was fortuitous, since Communist popular votes increased from 5,004,121 to 5,145,325. The rebuff to the Socialists was less substantial than was indicated by the number of seats lost. Socialist votes were 4,191,152 in 1945 and 4,187,747 in June, 1946. The minor Left parties were underrepresented, since they polled 2,018,665 votes in 1945 and 2,299,963 in June, 1946. Total votes of Right groups were 2,365,921 as compared with 2,550,750 in 1945. Among minor items of interest were the defeat of two outstanding De Gaullists, Réné Pleven and Jacques Soustelle; the election of Henri-Honoré Giraud, Paul Reynaud, and Edouard Daladier; and the re-election of Pierre Cot, erstwhile Radical, who now ran on the Communist list.

Bidault Cabinet. The election was followed by a protracted political stalemate, since the Communists at first refused to join a Cabinet headed by the MRP, the Socialists refused either to continue the Gouin regime or to participate in a Cabinet excluding the Communists, and the MRP was reluctant to bargain with the Communists. On June 19, however, Foreign Minister Georges Bidault, ex-professor of history, liberal Catholic, journalist, hero of the resistance, and leader of the MRP, was elected Premier-President by a vote of 389 out of 545 in the new Assembly, with the Communists abstaining. Cabinet-making proved difficult. Edouard Herriot rejected Radical participation. The Communists and the General Confederation of Labor pressed for a 25% wage increase and organized mass demonstrations. Following promises of higher wages, Bidault formed a new coalition on June 24:

Premier, Foreign Minister and Minister of Information—Georges Bidault, MRP.
Vice-Premiers without Portfolio—Félix Gouin, Socialist; Maurice Thores, Communist; Françisque Gay, MRP; Alexander Varenne, Democratic Union.
Finance—Robert Schumann, MRP.
Justice—P. H. Teitgen, MRP.
Interior—Jacques Depreux, Socialist.
Defense—Edmond Michelet, MRP.
National Economy—François de Menthon, MRP.
Agriculture—Tanguy-Prigent, Socialist.
Industrial Production—Marcel Paul, Communist.
Education—Marcel Naegelen, Socialist.
Public Works—Jules Moch, Socialist.
Post and Telegraph—Jean Letourneau, MRP.
Colonies—Marius Moutet, Socialist.
Labor—Ambroise Croizat, Communist.
Public Health—Réné Arthaud, Communist.
Population—Robert Prigent, MRP.
Reconstruction—François Billoux, Communist.
War Veterans—Laurent Casanova, Communist.

On June 26 the Assembly voted support of the Cabinet, 517 to 2. Bidault urged a speedy drafting of a new Constitution so that France might have a permanent government by fall. In July the Cabinet convoked a meeting of 150 representatives of labor, farmers, and employers in an effort to promote economic stabilization. The Ministers unanimously supported Bidault's contention that the Saar, Rhineland, and Ruhr should be separated from Germany and that France should receive increased shipments of German coal. On Bastille Day Winston Churchill, speaking in Metz, asked for a strong France, an Anglo-French entente, and a united Europe. On September 19 he repeated his plea in Zurich, arguing for German resurrection and a French-German rapprochement. The Constitution Committee of the Assembly meanwhile hammered out a new charter during August and September.

Constitution Adopted. The second draft Constitution of 1946, which won the support of all three major parties, was not radically different from the first. The new document of 107 articles (Text in the *New York Times*, October 1, 1946) opens with a reaffirmation of the rights of man and of the citizen, including equal rights for women "in all domains"; "the duty to work and the right to ob-

tain employment," regardless of origins, opinions, or beliefs; the right of trade-union organization and collective bargaining; social insurance; "free and secular public education," etc. Monopolies and public utilities "should become the property of the community." "France forms with the peoples overseas a union founded on equality of rights and duties without distinction of race or religion." "On condition of reciprocity, France consents to the limitation of sovereignty necessary to the organization and defense of peace."

Sovereignty is vested in the people on the principle of "government of the people, by the people, and for the people." The motto of the Republic: "*Liberté, Égalité, Fraternité.*" A bicameral parliament is reestablished. The National Assembly is directly elected by all voters attaining their majority, but the mode of election, duration, and conditions of eligibility are fixed by statute. The upper chamber or Council of the Republic, to be not less than one-third nor more than one-half the size of the Assembly and renewable one-half at a time, is chosen by indirect election through communal and departmental units, with one-sixth of its members named by the Assembly via proportional representation. The upper house, however, is not a coordinate body, since (Art. 20) it cannot reject legislative projects of the Assembly but can only delay them and call for reconsideration. An Economic Council is provided for, to advise the Assembly and Cabinet.

The President is elected by Parliament for a term of seven years and is declared "re-eligible for election only once" (Art. 29). Members of French royal families are ineligible. The President is to designate the Premier, but Premier and Ministers are responsible to the National Assembly. "They are not responsible to the Council of the Republic" (Art. 48). Votes of confidence can be asked for only by the Premier "after deliberation by the Cabinet" (Art. 49). Such votes can be taken only after a day's delay. The Cabinet resigns only if an absolute majority of all the deputies vote nonconfidence. Only in the event of two votes of nonconfidence within eighteen months can the Cabinet, on the advice of the President of the Assembly, order the dissolution of the legislature, in which case the President of the Assembly assumes the Premiership and new elections take place "at least twenty days and not more than thirty days after the dissolution" (Art. 61).

The "French Union" comprises metropolitan France and overseas territories, under the Presidency of the President of the Republic. Its "High Council" consists of French and colonial delegations. Its "Assembly" consists half of representatives of metropolitan France and half of representatives of overseas departments, territories, and associated States. But these bodies have only advisory powers. The old Council of State or highest administrative court is replaced by a "Superior Council of the Magistracy." Amendments to the Constitution (with the republican form of government not subject to amendment) are made by an absolute majority vote of the Assembly, followed by a second reading and vote within three months "unless the Council of the Republic has adopted by an absolute majority the same resolution" (Art. 90), followed by a final bill "voted in the manner of an ordinary law," which is then "submitted to a popular referendum unless it has been adopted on a second reading by the National Assembly by a majority of two-thirds or been voted by a majority of three-fifths by each of the two houses."

On October 13 the electorate, somewhat diffidently, approved this Constitution of the Fourth Republic. Almost one-third of the voters stayed home. Of those who expressed a preference, 9,200,467 voted "Yes" and 7,790,676 voted "No." Paris and the colonies voted in the negative. The heaviest affirmative votes were in industrial centers. Despite the appeals of party leaders, the Socialists and MRP voters were divided, with the Communists voting solidly for the charter.

Election of November 10. The first National Assembly under the new dispensation was chosen on the second Sunday of November. During the campaign the MRP flirted with De Gaulle and hinted at an anti-Communist coalition—"with Bidault and without Thorez," as Maurice Schumann put it. The Communists appealed for a united front of the Left. The Socialists refused to join either of their Cabinet partners against the other. The popular choice, in terms of deputies elected (from metropolitan France and Algeria), as compared with party strength in June, was as follows:

Party	*June 2, 1946*	*Nov. 10, 1946*
Communists	146	169
MRP	160	163
Socialists	115	103
Radicals and Left Groups	39	66
Right Groups	62	62

The victorious Communists polled 5,475,955 popular votes, the MRP 5,033,430, and the Socialists only 3,454,080, which was little more than the combined votes of the strengthened Right Groups (3,136,630). Thirty-three women, twenty-one of them Communists, were elected. While the Communists emerged again as the strongest party (although gaining only an additional 2% of all ballots case), the losses of the Socialists meant that the two Left parties no longer commanded an Assembly majority. The indirect election on November 24 of the Council of the Republic resulted in an upper chamber of approximately the same party composition as the Assembly.

Deadlock: Blum Cabinet. The new Assembly met on November 28 in an atmosphere of partisan friction. Bidault submitted his resignation, but no agreement had been reached regarding a new Cabinet. Despite the fact that the nationalization program of the MRP was sufficiently radical to provoke disapproval from the Pope, while the Communists were sufficiently conservative to frown on strikes, sponsor patriotism, and renounce all advocacy of proletarian revolution and dictatorship, the chasm between the two major parties had become wide and deep. The Socialists, standing between them, were split as to whether they should support either against the other. On December 4 Socialist Vincent Auriol was elected temporary President of the Assembly with the support of the Right and against Communist opposition. Maurice Thorez, Communist candidate for the Premiership, received 259 votes for this post on the same day, 29 short of the required majority. A dozen Socialists voted against him in spite of their party's belated decision to give him support. On December 5 the MRP candidate, Bidault, was likewise defeated, receiving only 240 votes.

Following protracted negotiations in which every proposed combination commanding a parliamentary majority was vetoed by one group or another, the 74-year-old Socialist leader, Léon Blum, was accepted as a compromise premier on December 12, receiving 575 votes with 8 for Robert Schumann and 7 blank. After an unsuccessful five-day effort to form a coalition Cabinet, Blum announced an all-Socialist Cabinet on December 16:

Premier and Foreign Affairs—Léon Blum.
State—Guy Mollet and Augustin Laurent.
National Defense—André Le Troquer.
Interior—Edouard Depreux.
National Economy and Finances—André Philip.
Four Year Economic Plan—Félix Gouin.
Justice—Paul Ramadier
Agriculture—Pierre Tanguy-Prigent.
Industrial Production—Robert La Coste.
Public Works—Jules Moch.
Education—Edmond Naegelen.
Social Security—Daniel Meyer.
Communications—Eugène Thomas.
Public Health and Population—Pierre Segelle.
Veterans and War Victims—Max Lejeune.

The Cabinet was approved by the Assembly on December 17, 544 to 2, with 69 Rightists abstaining. Blum declared that he had been unable to unite the two great parties, MRP and Communist, "whose simultaneous presence in the government is both indispensable and impossible." He pleaded for compromise and warned of the danger of dictatorship in the event of paralysis of democracy. André Philip proposed measures to balance the budget during the first quarter of 1947 through abolishing 50,000 public jobs, raising taxes and reducing subsidies. The Assembly approved, 530 to 60 on December 22. A flat 5% reduction of all prices was ordered at the end of the month. On Christmas Eve the Fourth Republic came legally into being with the first session of the Council of the Republic. By a vote of 124 to 119, against the combined opposition of Socialists and Communists, the upper chamber on December 27 chose Auguste Champetier de Ribes (MRP) as its President.

Mournful Interlude. The Blum Cabinet was admittedly a stop-gap pending the election of the President of the Republic in January, after which new efforts would be made to restore a coalition. De Gaulle announced on December 28 that he would not be a candidate, since he had no desire "to preside, powerless, over the powerlessness of the State." Blum, whose leadership within his own party was by no means secure, was dogged by a dark Nemesis, as he had been when he first came to the Premiership in June, 1936. Then, confronted by the Fascist attack upon the Spanish Republic, he made himself in the name of "non-intervention" the unwitting agent of those who were to bring France to ruin. In December of 1946 he was faced by new controversies with Washington, London, and Moscow by virtue of French action in setting up customs barriers around the Saar. He was further confronted with tragedy in Indo-China in the form of an outbreak of large-scale fighting between French troops and the independence forces of Viet Nam. In ordering military suppression of the rebels, he made himself the unwitting agent of those French colonialists who had already provoked wholesale bloodshed in Algeria and Morocco and might yet lose the whole French overseas empire.

Yet the turn of the year found the Fourth Republic at long last established and the liberated nation committed to socialization and economic planning. In Blum's words: "We are convinced that reconstruction is incompatible with the old liberal economy and cannot be assured by the law of profit, by the free play of the law of supply and demand or free initiative or free competition. It entails, on the contrary, the subordination of all private interests to the collective interest and to collective direction."

Whether the new France in 1947 could lay the foundations of a viable collectivist economy and still preserve personal freedom and parliamentary democracy remained to be seen. The bitterness of political conflict at home was enhanced by high prices, low wages, shortages of coal and foodstuffs, and production bottlenecks of all kinds. Diplomatic weakness and costly colonial warfare spelled new embarrassments abroad. Despite the accomplishments of the year, *La Grande Nation* had not yet emerged from the shadows. Its quest for a new dawn was certain to be troubled and painful.

See FRENCH INDO-CHINA, GERMANY, ITALY, PARIS PEACE CONFERENCE, SPAIN, U.S.S.R. and UNITED NATIONS.

FREDERICK L. SCHUMAN.

FRANKLIN INSTITUTE. The Franklin Institute of the State of Pennsylvania for the Promotion of the Mechanic Arts, founded in 1824, is devoted to the increase of useful knowledge, to the encouragement of invention and discovery, and to the education of the public in the achievements of science and industry. Its very title has always indicated a desire to do honor to Benjamin Franklin.

The Franklin Institute includes in its activities: publication of *The Journal of The Franklin Institute,* established 1862; lectures presented about twenty times a year by distinguished persons in science and industry; the Bartol Research Foundation which is devoted to research in pure science; the Biochemical Research Foundation devoted to the study of diseases from the chemical viewpoint; the Franklin Institute Laboratories for Research and Development devoted to applied research in the physical sciences for industry and government; the technological Library which now numbers 126,000 volumes and 40,000 pamphlets devoted to works of applied science and technology. The Library also contains a collection of patent literature. The research divisions, the machine shops, and the staff of the Institute all worked to the fullest extent in the war program.

Another important activity is the Committee on Science and the Arts, formed of 66 members of the Institute, which reviews in great detail many of the advances of science and technology. It recommends to the Board of Managers, those persons deserving the annual awards of the Institute, which are formally presented at Medal Day exercises in the spring. The Franklin Medal, highest award of the Institute, was presented in 1946 to Dr. Henry Clapp Sherman, Mitchill Professor of Chemistry, Columbia University, for his contributions to the science of nutrition, and to Sir Henry Thomas Tizard, president of Magdalen College, Oxford University, for his contributions to the science of aeronautics.

The Institute also maintains in its new building, erected in 1933 as a national memorial to Benjamin Franklin, a scientific and technological Museum containing thousands of active exhibits, the Fels Planetarium, an Observatory open to the public, and a Seismograph. To make Franklin better known and emulated, the National Franklin Committee was formed in 1941. Through its efforts information concerning all phases of Franklin's life is distributed free of charge.

The Franklin Institute membership now numbers about 5,500. The President, reelected in 1946, is Charles S. Redding; Secretary and Director, Henry Butler Allen. The Franklin Institute is located on the Benjamin Franklin Parkway at 20th Street, Philadelphia 3, Pennsylvania.

FRENCH EQUATORIAL AFRICA. A French colonial territory in north central Africa consisting of four colonies: Chad (461,202 sq. mi.), Gabon (92,218 sq. mi.), Middle Congo (166,069 sq. mi.) and

Ubangi-Shari (238,767 sq. mi), making a total of 959,256 sq. mi. Though administratively separate, the mandated area of the French Cameroun is included under this heading, with 166,489 sq. mi.

Population. On August 2, 1943 the population of French Equatorial Africa was 3,724,710, of whom 6,100 were Europeans, or .2 of one percent. In the Cameroun there were 2,700,000 natives and about 3,000 Europeans. Compared with Nigeria or the Belgian Congo these figures represent low densities. In the south and center there dwell Bantu Negroes, while in the north the natives are Sudan Negroes with strong Hamitic and some Arab intermixture. Those in the latter (and drier) region are largely Moslems; the Bantu in the wetter areas are pagans—except those few who have been converted to Christianity.

In general native institutions have been less disrupted than in the Belgian Congo or in West Africa. Educational opportunities are provided largely by missionary societies.

The Country and Its Economy. Along the coast and bordering the rivers in the interior there are extensive forests. In the northern part lies the Sudan with its open savannas, which shade off into steppe and desertic country as one proceeds northward into the Sahara.

The occupations of the inhabitants depend largely on these climatic conditions: tropical agriculture in the south and center, and more pastoral pursuits in the drier Sudan. The resources of French Equatorial Africa are very largely undeveloped. In the Cameroun there are a number of plantations, started by the Germans. For many years the French tried the system of granting large concessions to capitalist concerns, much after the fashion of Leopold II in the Congo. In recent years this system has been in less favor, because it failed to provide for an orderly and sound economic development or to safeguard the welfare of the natives. In the Cameroun the French Government has been bound to observe the terms of the Mandate (Class B) concerning monopolies, tariffs, native rights and so forth. During the war rubber production in the Cameroun was increased from 773 tons in 1939 to 3,000 tons in 1944. Other important exports from this territory are: peanuts, palm oil, hides, timber, cacao and coffee. From French Equatorial Africa come much the same products. Large numbers of cattle, sheep, goats, horses and camels are raised in the north, but are not exported for lack of a ready market. The colonies' mineral resources are believed to be valuable but have only begun to be exploited.

The value of exports from Equatorial Africa in 1942 was 469,314,000 francs, and of imports 778,358,000 francs. The relevant figures for the Cameroun in 1938 were 251,959,000 francs and 215,212,000 francs. The principal ports are Duala (Cameroun), Port Gentil, Libreville and Pointe Noire. The latter is connected with Brazzaville on the Congo by a railway (318 miles). There are 314 miles of railway in the Cameroun. In both the mandated territory and in Equatorial Africa there are several thousand miles of road, of which only a part is suitable for heavy, all-year traffic. New road links were built during the recent war to speed goods to the Middle East and Ethiopian fronts.

Government. French Equatorial Africa is administered as a unit by a Governor-General whose seat is at Brazzaville and who makes up a budget for the whole area. He is assisted by an administrative council. Each of the four colonies has a Governor to supervise local affairs. There are no really representative institutions, though the Free French regime—to which the Negro Governor Félix Eboué declared the region's loyalty in 1940—enunciated policies looking toward the closer association of the native peoples with the rest of the empire. During the war Equatorial Africa played an important part by providing overland access to the Nile Valley and Middle East and by forming a territorial base for the de Gaulle regime at a time when France and most of her empire was in Axis or Vichy hands. Representatives were sent to the Consultative and Constituent Assemblies in Paris in 1945 and 1946. A powerful radio station was constructed at Brazzaville in 1942 for broadcasting in various languages to many parts of the world. In 1944 the budget was reported to be balanced at approximately 600,000,000 francs.

Events. As in the case of the other French overseas territories, French Equatorial Africa elected delegates to sit in the Constituent Assembly at Paris. Unhappily for the success of the plan to create a French Union of all the colonies, the home deputies took little interest in the chamber's discussion of colonial affairs. This indifference no doubt reflected the general apathy of the French people, who had too many troubles nearer home occupying their attention.

A panoramic view of the economic situation of Equatorial Africa emerged from a report presented by Governor-General Bayardelle on December 19, 1945, to the Conseil d'Administration. During 1945, he revealed, there was increased production in all items save rubber, where the impetus of wartime demand had subsided. Cotton showed marked progress, reaching an output of 22,000 tons. Palm oil and palmetto production was less satisfactory, but steps were being taken to expand their ouput greatly. During 1946 a refining plant for palm oil was put in service at Pointe Noire, effecting numerous economies in treatment and transport. A program was also announced calling for an expansion in production of vegetable oils in Equatorial Africa up to 150,000 tons a year. This was to be achieved by substituting scientific techniques of cultivation for the primitive methods of the natives. Experimental stations were to be set up, and new plantations were to be started as well as old ones expanded.

French Cameroun. When the League of Nations came to an end, to be replaced by the United Nations, it was inevitable that the question of the mandated areas come up for settlement. The general assumption was that the League mandates would be transformed into United Nations trusteeships. In the case of France, however, the plan to create a French Union, comprising all the overseas possessions, introduced a complication. In January French experts explained to the Trusteeship Committee of the United Nations Assembly in Paris that in the French-administered parts of the Cameroun and Togoland, the inhabitants had the same rights as Frenchmen—electing delegates to their own local councils and sending representatives to the Assembly in Paris. This statement was interpreted by some of the committee members as indicating virtual French annexation of the mandated areas, and loud objections were voiced.

This criticism apparently had its effect, for on February 6 the French Cabinet decided to submit the Cameroun and Togoland to United Nations trusteeship. This step could not be taken until after the United Nations had set up their Trusteeship Council, which they did only during the Assembly and Security Council sessions at New York in December.

ROBERT GALE WOOLBERT.

FRENCH GUIANA. A Department of France in northern South America, comprising the colony of French Guiana (7,720 sq. mi.; pop. 31,000) and the hinterland territory of Inini (27,020 sq. mi.; pop. 6,100). On March 14, 1946, the status of Guiana was changed from a colony to a department, effective January 1, 1947. In 1945, the penal settlement contained 1,543 men. In 1938, a French law dissolved the penal institution. Repatriation of the inmates was suspended during the war and resumed in 1946. Chief towns: Cayenne, capital, 11,704 inhabitants, Mana, Oyapock, St. Laurent, Sinnamary. Chief crops: rice, maize, manioc, cacao, coffee, bananas, and sugar cane. There are large forests rich in various kinds of timber. Gold mining is the chief industry. Silver, copper, iron, lead, mercury, and phosphates are found. Foreign trade (1944): imports 128,244,611 francs; exports 38,396,333 francs. The budget (1945) was balanced at 64,462,051 francs. For the territory of Inini the budget (1945) was balanced at 6,073,900 francs. Shipping (1944): 94 vessels entered and cleared. Administration is controlled by a Governor, assisted by a privy council of 7 members. There is a Council General of 12 members who are elected by French citizens living in the colony. The territory of Inini is under the direct administration of the governor of French Guiana, assisted by an administrative council of 4 members acting in an advisory capacity. Governor, Jean Rapenne (appointed March, 1943).

FRENCH INDIA. The five French colonies in India—Chandernagor, Karikal, Mahé, Pondichéry, and Yanaoan. Area: 196 square miles. Population (1941): 323,295. Capital, Pondichéry: 53,101 inhabitants. Education (1944): 67 primary schools and four colleges; 13,179 students. The chief crops are rice, manioc, and groundnuts. There are cotton and jute mills at Pondichéry and Chandernagor Trade at the ports of Pondichéry and Karikal (1944): imports, 158,000 francs; exports, 174,000 francs. Shipping (1944): 64 vessels entered and cleared. There were 43 miles of railway open to traffic. Budget (1945): 4,170,000 rupees. The colonies are divided into 5 dependencies and 17 communes, having municipal governments. There is an elective general council. Governor: N. M. Jeandin.

FRENCH INDO-CHINA. A dependency of France, in southeastern Asia, comprising the divisions shown in the accompanying table. On July 30, 1941, the Vichy French regime signed a pact with Japan by which Japanese troops were allowed to occupy certain points in French Indo-China. On Mar. 10, 1945, the Japanese seized complete control of the country but after V-J Day, September, 1945, following the defeat of Japan, French officials resumed the administration of French Indo-China.

Chief towns (with 1940 population for Hanoi; 1936 figures for the rest): Hanoi (capital) 134,849, Binh-Dinh 147,199, Cholon 145,254, Haiphong 122,000, Saigon 110,577, Pnom-Penh 102,678, Hué 33,222.

Divisions	*Sq. mi.*	*Pop (1936)*	*Capital*
Annam [a]	57,143	5,656,000	Hué
Cambodia [a]	69,884	3,046,000	Pnom-Penh
Cochin China [b]	25,096	4,616,000	Saigon [d]
Laos [a]	89,189	1,012,000	Vientiane
Tonkin (Tongking) [a]	44,784	8,700,000	Hanoi [d]
French Indo-China [c]	286,096	23,030,000	Hanoi [d]

[a] Protectorate. [b] Colony. [c] Exclusive of the leased territory of Kwangchowan (309 sq.mi.; pop. 230,000 in 1936) which was returned to China by the French on Aug. 18, 1945 [d] The capital city is Hanoi but during certain seasons of the year, when climatic conditions are oppressive, the government offices move to Saigon.

Government. Under French rule the administration of the whole of French Indo-China was headed by a Governor General and he was assisted by a Secretary General, a government council, and a grand council for economic affairs. Each of the four protectorates (Annam, Cambodia, Laos, and Tonkin) was headed by a Resident Superior and he was aided by a protectorate council and a council of economic affairs. The colony of Cochin China had a Governor at its head and he was assisted by a colonial council. Governor General: Adm. Thierry d'Argenlieu (appointed September, 1945).

Events, 1946. Indo-China emerged from the war-years into a conflicting situation, conditioned by an Annamese uprising and a variety of Allied occupation forces. After the end of the war, the British who had fought their way into Indo-China, found their troops inadequate in number and used Japanese soldiers to maintain immediate postwar order. At the same time, a part of the Japanese forces turned quantities of their arms and munitions over to the Viet Nam nationalist movement fighting for an independent Indo-China. Toward the end of 1945, France organized sufficient troops to relieve the British, and assumed control of their colony. The reestablishment of French forces in Indo-China led to repeated clashes with the insurrectionist movement, which at the outset reportedly suffered 4,000 casualties.

In March, 1945, France, aiming to reduce the potentially explosive situation, outlined the plans for a Federal Union in which Indo-China would have a federal government. In this new colonial concept, natives would hold citizenship status in Indo-China and the Federal Union and would be eligible for administrative positions in either governments. In addition, the French plan envisaged a state council, composed of Indo-Chinese and French members, authorized to enact legislation.

During the time following the defeat of Japan, a nationalist government, the Viet Nam Republic, had been operating north of the 16th parallel. The conciliatory attitude of France toward Indo-Chinese nationalism was greatly governed by the presence of more than 100,000 Chinese troops under General Lu Han, which occupied the territory north of the 16th parallel by Allied agreement for the purpose of disarming and repatriating the Japanese. Despite their officially neutral status, the Chinese disarmed French citizens and indicated approval of the nationalist uprising.

On February 28 France and China reached an agreement providing for the withdrawal of Chinese troops from northern Indo-China and the end of French extraterritorial rights in China. The evacuation clause required China to withdraw troops March 31. The Chinese representative, Foreign Minister Wang Shih-chieh reiterated the Chinese policy of nonintervention toward the Indo-Chinese internal disputes, but added that "the Chinese people are sympathetic toward the national aspirations of the Indo-Chinese."

In the terms of the treaty, France not only abandoned her extraterritorial rights and concessions in China, but granted China extensive privileges on the railroad connecting the Chinese province of Yunnan with the Indo-Chinese port of Haiphong.

During the occupation term of the Chinese, the Viet Nam Republic enjoyed the opportunity to strengthen its position and organize its government. In the infant republic's first election on January 6 under the aggressive leadership of President Ho Chi Minh, who claimed a following of

8,000,000 members of the Viet Minh coalition party, 400 representatives were elected to the National Assembly. All Annamites over 18 years old were eligible to vote for representatives, who had to be at least 23 years old and able to read and write. The election returns gave Ho Chi Minh's party an overwhelming victory with many votes coming in from clandestine balloting in French controlled southern Indo-China. The only parties involved in the election were the Viet Minh, a coalition of the most nationalistic elements, and the League of Annamite Revolutionaries. The Viet Minh program was mostly based on agrarian reform and independence from France. Ho Chi Minh made it clear, however, that he did not desire a rupture of all relations with France, but rather preferred "an economic compromise." Ho claimed that the French offered him a bribe to give up his fight and expressed the hope that the United Nations would intervene in Indo-China and stop bloodshed.

Recognition that France could satisfactorily occupy southern Indo-China was made by Lord Louis Mountbatten on March 4 when he announced that the Southeast Asia Command would relinquish control of the country and that Indo-China south of the 16th parallel "will be exercised solely by French authorities."

The French and Annamite Nationalists on March 6 reached an accord in which the Viet Nam Republic was recognized as a "free state within the Indo-Chinese federation and the French Union." Admiral d'Argenlieu, the French High Commissioner in Indo-China, announced that the treaty had been signed at Hanoi and that a plebiscite would be held to determine whether Cochin China, Tonkin, and Annam would be included in the Viet Nam Republic. Altho Cochin China was a French colony and Annam and Tonkin protectorates, the nationalists controlled Tonkin and the portion of Annam north of the 16th Parallel. Two days before the signing of the treaty, the Nationalist-controlled radio at Hanoi reported reorganization in the Viet Nam Government. The Constituent Assembly had approved a new "Government of National Union and Resistance," the radio announced, retaining Ho Chi Minh as President, but replacing most of the Cabinet.

The agreement stipulated that French troops were to withdraw gradually from the new state during a five-year period in which a temporary occupation force of 15,000 French and 10,000 Viet Nam troops would be under French command.

Precedence for granting the Viet Nam autonomy had been set in an agreement with Cambodia on January 6 when France gave this protectorate internal autonomy, but retained control of Cambodia's foreign affairs and defense.

The French concessions to the Viet Nam were a distinct effort to gain peace and enhance the possibilities of an amiable French Union, as urged by General de Gaulle a year earlier. A major obstacle to the projected French Union lay in the desperate economic conditions within Indo-China. It was estimated that between 600,000 and 2,000,000 people in northern Indo-China died from hunger in 1945. In January an Associated Press correspondent counted 400 dead in the environs of Hanoi alone. Little improvement occurred in 1946. In the early part of the year at least seven provinces in the Tonkin area of northern Indo-China were under water and thousands of acres of rice fields were inundated.

On the same day of the Franco-Viet Nam pact, French warships carrying more than 20,000 French troops, exchanged fire with Chinese shore batteries in an attempt to enter the port of Haiphong. Both countries asserted that the other fired first and the Chinese Central News Agency explained that the incident arose from "technical difficulties" connected with the transfer of the port to the French. Apparently, the Chinese commander at Haiphong had not been properly informed on the provisions of the Franco-Chinese treaty. On March 8 French troops from Haiphong entered the Tonkin province, stronghold of the Nationalist movement without incident.

France and the Viet Nam Republic met in Paris in early July to establish agreement on the numerous issues that had arisen over the new nations economic and political relations with the proposed French Union. A month earlier France had granted Cochin China independence within the Indo-Chinese Federation and announced that a referendum would be organized to determine whether the new country would join the Viet Nam Republic. Since Cochin China was a large producer of rubber and rice, its status proved a key question at the conference.

After a drawn-out period of negotiations a provisional accord was signed on September 15 by Ho Chi Minh and Marius Moutet, French Minister of Colonies. Earlier, negotiations had broken off during the discussions when the Viet Nam delegation walked out in objection to a French action in convoking simultaneously a conference at Dalat in southern Indo-China for a discussion with Cochin China, Southern Annam and the Darlac plateau of the French Federation. Though the details of the accord were not made public, Ho admitted that the agreement was not wholly satisfactory, but was "better than nothing." Agreement was not reached on the degree of independence the Viet Nam Republic could exercise within the French Union and the referendum plan anticipated for Cochin China.

"We decided to facilitate the revival of French economic culture interests in Viet Nam in return for a promise that democratic liberties will be applied in Cochin China," Ho explained.

As Viet Nam entered its first phases of autonomy and compromise with France, signs of internal unrest began cropping up. At Hanoi in mid-July the government made 200 arrests in a round-up of opposition leaders. Several were identified as leaders of the Quac Dong Dong party, the Government's most powerful opposition.

The outbreak of disorder and arrests was attributed to actions of the Annamite extremists who opposed the March 4 treaty with France and the concessions at Paris. The French plan for Cochin China was also interpreted as a setback to the new nation's wide independence movement and an attempt to weaken the strength of Viet Nam by depriving them of an important granary of supply in Cochin China.

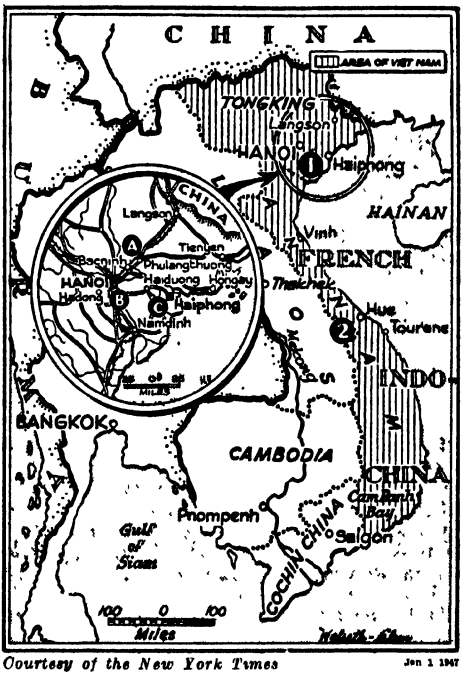
A few weeks later a French convoy of trucks was ambushed near Hanoi. Twelve French soldiers were killed, forty-one wounded, and a $140,000 payroll was seized. At the same time, the Annamite population of Saigon staged a two hour strike protesting the French-sponsored Republic of Cochin China.

The complexity of the Indo-Chinese political situation was increased on November 10 with the discovery of the death by hanging of Naguyen Van Thinh, President of the Provisional Government of Cochin China. President Thinh's death was attributed to suicide, induced by despondency over his country's political disunity. Dr. Le Van Hoach who was sworn in as Cochin China's new President on

December 7, praised French aid to Indo-China and said that his administration was neither separatist or unionist regarding relations with the Viet Nam Republic.

As 1946 approached its end, clashes between the French and Viet Nam Nationalists grew in scope and violence. During late November the French Colonial Ministry in Paris reported Viet Nam attacks on French troops and small naval vessels, and the recapture of Haiphong airfield by French troops.

Full-scale guerrilla warfare burst into the open on December 20 when French troops and Viet Nam partisans clashed on the Annamite section of Hanoi, part of which was destroyed by fire. Ho Chi Minh, Viet Nam War Minister Nguyen Giat, and other Viet Nam officials reportedly fled from Hanoi on December 19 after Roger Santeney, French Commissioner of Tonkin protectorate was seriously wounded. As French sources reported other Viet Nam attacks on French garrisons in the Hanoi area, General Louis Morliere, commander of French troops in Tonkin, assumed control of the Government, and proclaimed martial law. On December 21 warfare spread to all major cities and towns of northern Indo-China as fighting continued in Hanoi with the French using aircraft and armored vehicles. Unofficial estimates put Viet Namese forces at between 60,000 and 80,000 and French forces at 75,000.



Courtesy of the New York Times Jan 1 1947

FRENCH ARE FORCED BACK IN FRENCH INDO-CHINA

Premier Léon Blum told the French Assembly on December 23 that the situation in Indo-China was "not alarming but serious," and reaffirmed France's recognition of an independent Viet Nam. Within the next two days Major Gen. Jacques-Philippe Leclerc, expert on mobile warfare, and a crack regiment of French paratroops, based in Algeria, departed for Indo-China. In Saigon, Indo-China, Admiral Thierry d'Argelieu, French High Commissioner for Indo-China, announced that "France does not intend in the present stage of evolutions of the Indo-Chinese people to give them total and unconditional independence, which would be an action gravely prejudicial to the interests of both parties."

On December 15, Ho sent a message to Léon Blum, Provisional President of France, proposing:

"1. On Viet Nam side, to invite the evacuated population to go back to the villages, to take all necessary measures to insure return to normal economic life in villages at present troubled by state of hostility, to make measures of self-protection taken by the population to cease, and insure return to normal of traffic between Hanoi-Haiphong and that of Hanoi-Langson;

2. On the French side, the return of French troops and Viet Nam troops to the position they had before Nov. 20 at Haiphong and Langson and withdrawal of reinforcements recently sent to Tourane contrary to our agreement, cessation of so-called clearing-up operations and repression campaigns in Cochin China and South Annam

3 On both sides, make organism provided to apply 'modus vivendi' come into function immediately . . . and put an end to all unfriendly propaganda on French and Viet Nam radio and in press."

Persistent rumors from the obscured political situation in Indo-China placed responsibility for the Viet Nam attacks on the French on Ho Chi Minh's Minister of Defense, Nguyen Giap, who was said to have gained control of the army. On December 26 Premier Blum said that negotiations with Viet Nam could not be resumed until order had been restored in northern Indo-China. From Saigon, Minister Moutet reported that the military situation was "well in hand."

In the last days of December the revolt against the French spread to southern Indo-China and Cochin China while Viet Namese continued their offensive operations against the isolated capital of Hanoi.

Production. The chief agricultural products are rice, maize, pepper, spices, tea, kapok, groundnuts, copra, and rubber. Eighty-six percent of the crop areas is devoted to rice. The forests in the north produce tropical hardwoods, bamboo, herbs, and essential oils. Fishing is an important native occupation. Included in the minerals produced are anthracite, gold, chromite, manganese, tungsten, antimony, tin, zinc, and iron.

Foreign Trade. In 1942, imports were valued at 1,378,000,000 francs; exports 2,471,000,000 francs. Imports included cotton and silk tissues, metal goods, and motor vehicles. Chief exports: rice, rubber, fish, coal, pepper, cattle, hides, corn, zinc, and tin ore.

Finance. There is a common budget for the whole of French Indo-China and a separate budget for each of the states. General budget (1941): 1,290,-147,500 francs; extraordinary budget (1941): 189,-337,800 francs. On Jan. 1, 1941, the outstanding debt of French Indo-China totaled 2,515,894,110 francs, including government loans and loans for the purchase of railway material.

JOSEPH P. BLANK.

FRENCH LITERATURE. Two years after the liberation of Paris and the uncritical enthusiasm which then acclaimed French books newly rediscovered, France seems to remain the most active creator of new works and sower of new ideas in Europe. Some of this intellectual effervescence is no doubt superficial: it is due in part to the escapist desire to forget pressing material difficulties or to the inflationary boom which has made books and works of art the most avidly sought merchandise next to food. Yet when the exceptional circumstances are discounted, it remains true that France is undergoing a remarkable literary renaissance; the names of young men of high promise ready to replace the

fading celebrities of authors in their fifties or sixties are legion.

Personalia and Literary Events. Striking details of French literary life, such as academic elections, prizes, polemical debates between writers, continue to make front-line news in France, competing often successfully with announcements of the peace conference, economic changes, political speeches, and votes on the Constitution. Existentialism is, in France, and in New York too, being as widely discussed as Surrealism, Cubism, and even Communism ever were, a decade ago. Articles from literary and artistic reviews are debated in cafés. *Les Temps modernes*, J. P. Sartre's review, *La Nef*, *L'Arche*, *Etudes* and the more traditional *Revue de Paris* are the chief literary periodicals: *Quadrige* and *Elites françaises*, along with *Verve*, recently reborn, and *Cahiers d'art*, a luxurious publication, appeal to amateurs of painting as well as of literature. *Confluences* and *Fontaine* have, however, suspended publication.

The French Academy undertook to strengthen its prestige by electing new and younger talents. Claudel and Romains were its outstanding choices in 1946; the election of Pagnol, the dramatist and film writer, surprised the more conservative elements of academic tradition, and that of Charles de Chambrun disappointed those who contend that only writers should belong to a literary assembly. The other new Immortals are an able historian of Asia, René Grousset (whose recent *Bilan de l'histoire* is reminiscent of Michelet and Tocqueville in its breadth of vision), Robert d'Harcourt, an able historian of Germany, Henri Mondor, a renowned physician who is also an interpreter of Mallarmé and Valéry, Maurice Garçon, an eloquent lawyer. George Lecomte succeeded Duhamel as "Perpetual" Secretary. Literary prizes aroused much attention: they went chiefly to novels and will be mentioned under *Fiction*. A few of the collaborationist writers whose trials had been delayed have been sentenced to various terms of "national degradation" or of prison: André Demaison, Bernard Faÿ, André Salmon. Others, acquitted by the courts (Montherlant, Giono), are free and again writing, though no longer the public's favorites. A young poet and philosopher of great promise, Henri Mougin, died as a result of years of debilitating captivity. Among the older writers, few have retained great prestige with the coming generation. Gide seems to have exhausted his inspiration if one may judge by his mediocre *Thésée;* a successful film was made of his old novel, *La Symphonie pastorale*. Mauriac continues to prefer journalistic writing to fiction, but his articles, collected in a volume, *Le Baillon dénoué*, have merely ephemeral interest. Romains and Maurois, who went back to France after several years spent in America, found themselves out of tune with the public taste. Malraux, Sartre, Camus, Paulhan are the leaders of youth.

Poetry and Drama. Poetry has now lost the predominance over the other kinds of writing that it enjoyed during the war years. Aragon's muse is silent; Supervielle published the result of his recent inspiration in *Poèmes 1939–1945*, disappointing after his *Fable du monde* of 1938. Eluard is the most widely loved of the French poets: his *Poésie ininterrompue* indicated his orientation toward a purer, more humorous, and more difficult poetry, after his deeply moved and moving Resistance verse. Reverdy, a great but little-known poet, gathered his early verse in *Plupart du temps*, an impressive collection. Henri Mougin, in *Trois Bornes de cristal*, and Jean Cayrol, in *Poèmes de la nuit et du brouillard*, both prisoners of war for four long years, are the most brilliant newcomers to the ranks of French singers. Other poets of acknowledged importance have published only prose works this year: P. J. Jouve, *Défense et illustration*, Aimé Césaire, the gifted and colorful Negro poet from Martinique, *Les Armes miraculeuses*, Henri Michaux, *L'Espace du dedans*. Césaire and another Negro poet from Senegal, Senghor, have been praised as the most eloquent orators of the French Constituent Assembly, to which they are both deputies.

Few outstanding plays have been acted in Paris in 1946. Sartre, and Camus, whose *No Exit* and *Caligula* are being brought to the New York public, have published one more recent drama. Simone de Beauvoir, the leading woman among the Existentialists, scored only a moderate success with *Les Bouches inutiles* Older plays were revived with skill by famous producers like Baty (Musset's *Lorenzaccio*), Dullin (*King Lear* and *Le Faiseur*, adapted from Balzac's *Mercadet*); two plays by F. Garcia Lorca were translated from the Spanish, as were two of Calderon's dramas. The Odéon theater is being completely renovated under a new name. André Obey was appointed to rule over the Comédie Française: he will be advised by an artistic committee including Jouvet, Baty, Pierre Dux and Robert Kemp. New financial measures taken by the oldest of French national theaters caused a substantial number of resignations among the actors: new appointments may bring about a welcome break with age-old acting traditions.

Fiction. Publishers who three and four years ago feared for the future of the novel, since the public then found solace in poetry, must be reassured by the present renewal of interest in works of fiction. Towering above all other recent works is Sartre's *Chemins de la liberté*: in philosophical content, in variety, and subtlety of psychological analysis, in mastery over plot and concrete evocation of life, in technical skill, it is probably the most important saga-novel since Proust. French readers have acknowledged its merits but have been divided on the moral value and on the possibly harmful influence of a work which does not ennoble life. Other important novelists, who are at work on forthcoming volumes, remained silent in 1946: Camus (whose *The Stranger* was published in New York in translation), Malraux, Martin du Gard. The latest volumes of Romains' long series have aroused little attention. Surrealism has praised, too lavishly in our opinion, two attempts at supernatural fiction by Julien Gracq, whose gift is chiefly that of a stylist. One of the finest and most delicately moving novels of the year is *Le Mas Théotime*, by Henri Bosco, a sort of French *Wuthering Heights* laid in Provence: it received the Theophraste Renaudot prize.

The Goncourt prize was granted twice: for the current year and to replace the 1940 prize, omitted on account of circumstances. J. L. Bory's *Mon Village à l'heure allemande* is an amusing, though hardly convincing or edifying, sketch of village life under the German occupation. Ambrière's *Les Grandes Vacances* is more solid and more serious: its title refers ironically to the author's long internment in a German prison camp. The Théophraste Renaudot prize for 1940 went to a realistic and unforgettable delineation of the horrors of a camp for civilian deportees: *L'Univers concentrationnaire*, by David Rousset, a French Protestant long an inmate of Buchenwald. Roger Vailland has drawn an ironical and lively picture of French youth in the Resistance in *Drôle de jeu* (Prix Interallié). The

French Academy crowned a traditional novel of provincial life, *Fontagre,* by Jean Orieux. The Grand Prix de la Libération went to a short story, *Frères partisans,* by Raymond Gabriel, both of whose parents perished in a deportees' camp. The Prix de la Pléiade was bestowed upon an epic novel in verse, *Terre du temps,* by a former industrial worker who became a priest, Abbé Grosjean. Other novels of note are: *Parenthèse* by J. Lemarchand, *Départ dans la nuit* by E. Bove, *Le Solstaire* by M. Blancpain, *Le Dernier des métiers* (a dark picture of the soldier's life) by J. L. Bost.

The vitality of the French novel has been stimulated by the extraordinary and fecund influence exercised by American fiction. As Russian literature appeared monotonous and often lifeless, and as English novelists now alive seem to lack the originality of their predecessors like Joyce, Lawrence, Virginia Woolf, the French have turned to Kafka, and to recent American writers. Faulkner's technique and vision have literally fascinated France and Europe. Erskine Caldwell, Henry Miller, Nathaniel West are also read with enthusiasm and more wildly praised than they ever were in their own country. The French have drawn from their American contemporaries a lesson of mastery over concrete and vivid details, a keen attention to sensations and thrills, a quicker manner of writing, akin to that of American journalists; they have repudiated their traditional emphasis on psychological analysis and a certain thinness of subject and content which has often impoverished French fiction. The ebullient life and even the morbid violence of American fiction are now being combined in France with a subtler technique and a restrained and selective style.

Criticism, the Essay, and Historical Works. The criticism published in several French reviews is surprisingly serious in tone and acutely penetrating, far superior to that of the prewar years. One almost wonders how creation can remain vigorous in the face of such pitiless analytical dissection. Robert Kemp, at times unfair in his irony, writes brilliant revaluations of past writers. Caillois and Monnerot practice the sociological study of literature, and do not escape the dangers to the sensuous enjoyment of beauty and to the perfection of style which it entails. Thierry-Maulnier seems more and more attracted by political thought. Schlumberger, in *Nouveaux Jalons,* pursues the tradition of the French moralists, made more austere by his Protestantism. Paulhan concentrates his vast erudition and his piercing logic on the problem of style and rhetoric. Claude Mauriac (the son of the novelist) extolled Balzac (*Amer Balzac*) and attacked Cocteau. Mauriac himself was studied in two critical works by Joseph Majault and Georges Hourdin; but the definitive appraisal of his originality and of his art is still to be written. Valéry inspired several articles which attempted to assess the chances for survival of his impeccable poetry and of his polished but arid negations. The two finest critics of today seem to be Maurice Blanchot and Claude-Edmonde Magny, both steeped in philosophy. They do not spare their readers, and their comments on the books of the hour are as difficult as they are penetrating.

Literary history has also worked actively in 1945–46. New editions of the French classics, long out of print, have appeared. Baudelaire's poems have been copiously annotated by Crépet and Blin in a truly exhaustive edition. Vigny's life and works have been studied in two learned volumes by Lauvrière and his philosophical and religious attitude in a posthumous monograph by Bonnefoy, killed in the war. Maurois in *Etudes américaines* and Coindreau in *Aperçus de littérature américaine* have tried to answer the eager curiosity of the French public about the literature of the United States of America.

The fashion for war literature and memories of heroic fights in the Underground has been short-lived. Parrot has summarized in a useful enumeration, *L'Intelligence en guerre,* the literary achievements of the war years. But the common reader prefers to turn to escapist novels, to translations of foreign works which reveal to him the outside world from which he was long shut out, and to books of a philosophical and speculative character.

Conclusions. This last feature is especially striking in postwar France. Philosophy has invaded literature: many novelists and poets were trained as teachers of philosophy. The most successful novels are pregnant with latent, and occasionally obtrusive, metaphysical implications: Sartre has coined the phrase "passionate geometries" to characterize the ideological essays by Camus and Bataille.

Three currents are clearly discernible in French thought and literature in 1946. (1) Extreme rationalism, deriding or denying mystery, confident in the power of science to enlighten men and to bring about an age of progress. This new positivism is closely allied to Marxism. It has attracted several of the most eminent Frenchmen of science (Jolliot-Curie, Langevin, Prenant) and not a few philosophers (Friedmann, Garaudy, above all brilliant Pierre Hervé). Marxist materialists and positivists have celebrated with much *éclat* the memories of Voltaire, Lamarck, Anatole France. Their reviews are *Lettres françaises, La Pensée.* (2) Existentialism which, indirectly derived from an unorthodox and anguished Christian, Kierkegaard, groups many unbelievers who assert the meaningless absurdity of the world. They accept despair unflinchingly, refuse the comfort of irrational solutions, proclaim their metaphysical disquietude in moving terms. They might be called tragic humanists. While "widowers of God," in Sartre's phrase, they proclaim man's freedom and his boundless responsibility to grapple with real problems and alleviate somewhat the absurd and cruel illogic of man's fate. Along with Sartre, Bataille, Blanchot, and Merleau-Ponty are the most striking exponents of atheistic Existentialism. (3) The Christian tradition, probably the oldest and the deepest in French thought, is also active. A whole group of Existentialists, derived from Kierkegaard and from the Swiss Protestant Karl Barth, claim to resolve the absurdity of the world and the problem of evil through a reinterpretation of original sin. This Christian group of French writers has sided resolutely with the Left in political and social matters. They hope to change man as well as society, and cling to respect for the human person: "Personalist" is the label often affixed to them. Gabriel Marcel and Maritain are the philosophical mouthpieces of this Christian group; Mauriac and Bernanos, its novelists, Pierre Emmanuel, Cayrol, Luc Estang, its poets. Their reviews are *Temps Présent, Témoignage chrétien, Esprit, Etudes, La Vie intellectuelle.*

Thus variety and stimulating contrasts characterize French letters today; France has always been a land of dialogue; intellectual monotony remains the sin most devoutly to be avoided.

HENRI PEYRE.

FRENCH NORTH AFRICA. Consists of the northwest corner of Africa, except for certain small Spanish territories (see SPANISH AFRICA), and is known to

the Arabs as "el Moghreb"—"The West." Its territory is divided among Algeria (847,500 sq. mi.), French Morocco (153,870 sq. mi.) and Tunisia (48,300 sq. mi.).

Government. Northern Algeria is for most purposes treated as an integral part of France. It is divided into three departments (Oran, Algiers, Constantine) in which the French population has for many years elected representatives to the legislative bodies in Paris. The over-all authority is exercised by a Governor-General who is responsible to the Minister of the Interior in Paris. Natives have been represented only on local bodies such as the Délégations Financières The number of Moslems who have enjoyed French political rights has been quite small, but has recently been greatly augmented (see *Events*). South of the three departments, in the Sahara, lie the four Territories of the South, which form a separate colony under military command.

The empire of Morocco is theoretically an absolute monarchy, but in reality it is a French Protectorate where power is exercised by the French Resident General, who is also the Minister of Foreign Affairs and is responsible to the Ministry of Foreign Affairs in Paris. Under the Resident General is an extensive administration, French in its higher levels but with increasing numbers of natives in the local areas. In some parts of the interior military, rather than civil, administration has been the general rule, since these areas have been "pacified" only recently. The capital of the French regime is at Rabat, though the Sultan occasionally resides in one of the other historic capitals—Fez, Marrakesh, and Meknes.

Tunisia, like Morocco, is a French Protectorate and thus under the direction of the Foreign Ministry in Paris. An hereditary Bey nominally rules over the Regency, but the actual administration is under the control of a French Resident General who is also the Minister of Foreign Affairs for Tunisia. He presides over a cabinet in which some of the departments are headed by Tunisians. Local affairs, both judicial and executive, are to a considerable extent under the administration of native officials. Extensive reforms have recently been proposed (see *Events*). The capital is at Tunis. There are no over-all representative institutions in either Morocco or Tunisia and, being Protectorates, their Moslem inhabitants are not represented in the legislative bodies of Paris.

Events. The agitation for independence in the "Moorish" countries received a fresh impetus from the newly organized Arab League in Cairo. Operating through the North African Defense Front, it openly espoused the cause of North African freedom. An annex to the pact constituting the Arab League had pledged the latter "to use its best efforts" in order that the political aspirations of the non-independent Arab peoples be realized and that meanwhile they be permitted to participate in the non-political activities of the League. The League's secretary-general, Abdul Rahman Azzam Pasha, made it quite clear that his organization wanted the League to include *all* Arabs everywhere. On November 17 he declared that "the Arab nations cannot cooperate with France or Spain as long as they occupy Arab nations in North Africa . . . We Arabs will not be satisfied until North Africa is liberated." Though the Defense Front had no great popular following, the French government did not make the mistake of underestimating the power of its appeal to the hungry and destitute masses in North Africa.

After several years of drought and consequent famine, the food situation improved during 1946. Late in March ex-President Herbert Hoover, on a world tour to investigate food conditions, reported that "in French North Africa some fresh vegetables are beginning to be available but the volume is still small. Drought was most severe there. It is the only country so far visited, and perhaps the only country in all to be visited in which the farm population is no better, and perhaps worse off, than the urban population. Livestock losses were heavy, amounting to 80 percent in some localities." He found the normal consumption of bread to be 10.6 oz. per day; of fats, 17.7 oz. per month; and of sugar, 17.7 per month. These rations provided 1,000 calories a day, supplemented by 500 more calories from other sources. He estimated that French North Africa would require 250,000 tons of grain by June 15, when the new harvest would come in. However, the report continued, "French North Africa will have enough grain for its own needs in 1946–47 only if weather conditions from now [late March] until harvest are above average." Happily, the harvest was the best in years, though adverse weather conditions blighted it in certain districts, and North Africa was relieved of heavy dependence on grain imports.

Tunisia. The two Tunisian nationalist movements, the Destour [constitutional] and the Neo-Destour Parties, operating in fairly close conjunction, were the source of considerable trouble for the French authorities during the year. The leader of the latter group, Habib Bourguiba, voluntary exile in Egypt, was in close contact with the Arab League in Cairo. Late in the year he arrived in the United States, where he hoped to interest American public opinion in his campaign for Tunisian independence. His headquarters in Cairo had, a few weeks earlier, denied that naval bases in Tunisia had been offered to the United States in exchange for assistance in freeing the country from France. However, Bourguiba stated quite frankly that he hoped so to impress the outside world with the justice of his demands and the depth of his countrymen's desire for freedom that the other Powers would bring pressure on France to grant Tunisia her independence and thereby avert bloodshed.

The French authorities admitted that most Tunisians favored the nationalists' program, but they were unwilling to diminish the prestige and strategic position of France in the Mediterranean by according the Tunisians more than moderate reforms. These consisted in the creation of a Ministry of Social Affairs, the reconstitution of a Grand Council with consultative functions in regard to legislation, the restoration of the Tunis Municipal Council and of the regional councils, and the establishment of new councils in the rural areas. The Grand Council comprised two sections of equal size, one French and one Tunisian. The first was elected by universal adult suffrage among the 120,000 French citizens in the Regency, the second by a selected few males from among the 2,700,000 native population. In any case the Council was purely consultative, and was not authorized to discuss constitutional or political affairs. It could hardly, therefore, be regarded by the Tunisians as a very effective means for expressing their wants or for determining their own future.

At the same time, the French administration pointed out that it had embarked on a ten-year development plan costing 73,000,000,000 francs that was expected to increase the country's agricultural production two or threefold within two decades. The Nationalists rejoined that this money was

coming from the Tunisians themselves and could hardly be regarded as a favor conferred on them by France. In any case, they wanted to run their own country, and nothing short of that would satisfy them.

The Nationalists were especially concerned over the proposal to create a French Union comprising all of France's overseas possessions and protectorates. This would integrate Tunisia more closely with France and open the country to further French colonization. A hint of things to come had been given when French citizens in Tunisia had been permitted to vote in elections for the Assembly in Paris, at a time when political parties were prohibited to the Tunisians, their newspapers were suppressed, and they were forbidden to hold public meetings. (In the referendum on the first constitution submitted to all the French voters in Tunisia, 28,000 voted against it, 16,000 for it, and 35,000 abstained.)

Despite assurances by General Charles Mast, Resident-General in Tunis, that his regime was dedicated to liberal principles, a number of native leaders were arrested on August 23 while attending a secret congress of the independence movement. According to a dispatch from Cairo in the *New York Times* of September 3, "Three thousand persons, including former Ministers, Destourians, labor union members, civil servants, intellectuals, religious leaders, and professional men were said to have been attending the congress when French police entered, ordered the meeting dissolved and arrested fifty-two leaders, seven of whom were released. Armored cars surrounded the district and mobile guards with automatic weapons accompanied the police. . . . Among those arrested were Laroussi Haddad, president of the Criminal Court, who was presiding, all except one member of the political bureau of the new Destour; three leaders of the old Destour and Sheikh Fadel ben-Aschour, professor and labor union leader. Judge Haddad later was released. Before the meeting was broken up it adopted a resolution condemning the French 'regime of exploitation' since 1881 and declaring that 'immediate independence, complete and without conditions, is the only regime capable of rectifying the errors of the past and of safeguarding the destinies of a great people.'"

The Tunisian Labor Federation, with a membership of some 30,000 recently detached from the French *Confédération Générale du Travail*, went out on a three-day strike. During the crisis the French brought in reenforcements of Senegalese troops. Even the Bey, whose removal had been demanded by the Destour, showed his displeasure at the repressive measures of the French administration.

A month later, on September 25, General Mast announced reforms, which included the abolition of French regional chiefs, the extension of municipal elections to the entire country, the creation of a Cabinet Council under the Bey, and the establishment of a Grand Council to be chosen directly by an electoral college. The intention of these reforms was to have the French officials serve merely as "advisers" for the Tunisians and to give the latter increased responsibility for the administration of their own government.

Algeria. The political situation in Algeria differed from that of Tunisia in several respects. For one thing, Algeria had long formed a part of the French constitutional system, being organized into three departments represented in the Paris Chamber of Deputies and Senate. The prospect of being absorbed into the new French Union was not, therefore, so disturbing to Algerian public opinion as it might otherwise have been. This circumstance no doubt helped to explain why some of the Algerian delegates to the National Assembly supported the government's colonial policy—the same policy so bitterly opposed by the Tunisian Nationalists, for example.

The leader of the Democratic Union of the Algerian Manifesto, Ferhat Abbas, a druggist of Sétif, and most of his colleagues represented this tendency. Politically and culturally they looked to the institutions of the Christian West rather than of the Moslem East. They opposed Pan Islam as an "anachronism," favoring instead the "autonomy of Algeria in the framework of French federalism." By autonomy they meant an Algerian government responsible to an Algerian parliament voluntarily federated with the French Union. The moderation of these demands was all the more significant because Abbas had been released from prison only in March, after having been kept there since the disturbances in the Department of Constantine of May 1945 (see YEAR BOOK for 1945, p. 230), and because his party had been allowed to operate again only in the middle of May 1946 after having been suppressed and declared illegal for a year.

On the other hand, the Association of the *Ulemas* (Moslem learned men) opposed the assimilation of Algeria into France, either politically or culturally. Instead they favored a theocratic form of society and government, allied with the conservative elements running the Arab League in Cairo. Also in touch with Middle Eastern Arabs was the Algerian People's Party. The leader of this group, Messali Haj, was released from detention in French Equatorial Africa during the summer, but was later reported to be under house arrest in Paris, where he was agitating for complete independence.

For electoral purposes Algeria had been divided into two "colleges," each with thirteen seats in the Assembly in Paris. One college comprised some half million French men and women, including natives on whom French citizenship had been conferred for one reason or another. The other college contained 1,341,000 Moslem non-citizens. In the election of June 2, the latter college returned 11 members of the Manifesto Party, including Ferhat Abbas, and two Socialists who had stood on a platform favoring a single electoral college for all of Algeria. The French authorities were surprised at this turn of events, particularly since the Manifesto had never before participated in elections.

On September 25 the French cabinet made known the terms of a bill for the reform of the government of Algeria which it intended to present to the National Assembly. According to the London *Times* for September 26, this bill provided for "the displacement of the present financial assembly by an Algerian Assembly of 90 members, of whom half would be Muslims. Its members will be elected by universal suffrage for six years, with elections for half the members every three years. It will share with the governor general the initiative in financial matters, and will have some power of proposing new laws applicable to Algeria. M. Ferhat Abbas, leader of the Algerian autonomous party in the Constituent Assembly, has criticized these proposals as providing no means for loosening the stranglehold of the Algerian Civil Service [French] on the administration. It is clear that the Bill does not provide for self-government, since there is to be no form of Algerian Cabinet."

The economic situation in Algeria after three years of drought was anything but happy. Instead

of too little rain, some districts have actually received too much, and right during the late spring harvest season. Nevertheless, the grain situation had improved over previous years, when half or more of the wheat consumed had had to be imported. The tragic depletion of livestock, in some areas amounting to 95 percent, could not be remedied save after a number of years. Meanwhile those who depended on herding for their livelihood were crowding into towns and cities where they could be fed at government kitchens. The populace also suffered from a very grave clothing shortage that left countless thousands dressed in rags and tatters.

In mid-February a severe earthquake in the southwest corner of the Department of Constantine was reported to have resulted in some 300 deaths. Two separate areas were hit by the tremors, one near Sétif and the other around Batna.

French Morocco. Morocco appeared to be politically the quietest part of French North Africa. In May the leaders of the *Istiqlal*, or independence, Party were released, along with the heads of the anti-French groups in Algeria and Tunisia, though their party was not legalized. Late in the summer representatives of the *Istiqlal* movement went to Paris in order to lay their case before the French government. The objectives of their party, they declared, were the establishment of a constitutional monarchy with an elective parliament. They also asserted that they enjoyed the support of the sultan.

The Pan Arab movement of the Middle East did not appear to hold as much interest for the Moroccans as for peoples like the Tunisians who were nearer to Cairo. The Arab League, however, included Morocco among those countries which it intended should eventually become free and hence able to join it. In the Spanish Zone of Morocco the independence movement sponsored by the Franco regime continued, as was intended by Madrid, to be a source of trouble for the authorities in the French Zone. What effect the rise in importance of the Communist Party in France would have on colonial policy remained to be seen. Some observers believed that the Communists would prefer to keep the empire intact, against the day when they would inherit it; while others pointed out that a strict adherence to Marxist principles would dictate that the Communists follow an anti-imperialist line.

The much improved economic situation of Morocco contributed to political stability. By June the new harvest was coming in and, because it was nearly normal in volume, no further grain had to be imported from America.

The once important United States Army air base at Cazes, near Casablanca, had by the end of the year become almost unused. Instead, both the Army and Navy were operating from the American base at Port Lyautey, north of Rabat. Reports were current in the fall that the Navy wanted to keep this base permanently and that the subject was under negotiation with the French government. (See SPANISH AFRICA; TANGIER.)

The Population. The population of Algeria in 1936 numbered 7,234,684, of which nearly one million were European. Only a tenth of Algeria's inhabitants live in the vast desertic Territories of the South. Arabic is the predominant language spoken by the Moslems, with Berber dialects found in certain districts. There are also Jewish communities in the cities. The education of the natives is provided largely by Moslem schools, which are attended by only a small part of the population. For the Europeans there is the regular French scholastic hierarchy, culminating in the University at Algiers.

In 1936 the population of the French Zone in Morocco was 6,298,528, of which 5,874,888 were native Moslems, 161,312 native Jews, 173,533 French, 59,058 other Europeans. (All these figures have probably undergone considerable change during the last decade.) The native population consists largely of Moslemized Berbers and the descendants of the Arab invaders of the early medieval period. There has also been a considerable intermixture of Negro blood imported across the Sahara. Under French rule the major cities of Morocco have grown rapidly, until today Casablanca has a half million inhabitants, while Rabat, Fez, Marrakesh, and Meknes all exceed 100,000. Berber is still used by a considerable portion of the natives, especially in the interior. Along the coast, however, Arabic has become the common tongue. In general the educational facilities available for the Moslems are limited and outside the populated centers are provided mostly in religious schools. There is, however, the noted Kairoween University at Fez. For the European population there are a number of primary and secondary schools. At Rabat there is also the Institut des Hautes Études Marocaines.

In 1936 the population of Tunisia was 2,395,623 Moslems, 59,485 Jews and 213,205 Europeans. Included in the latter figure were 108,068 French and 94,289 Italians. However, these figures are deceptive since a great many of those counted as French are of Italian ancestry. The Moslems are largely Arabic-speaking, the principal exceptions being found among certain tribes in the south. The European population is almost entirely Roman Catholic. Education is provided partly by religious and other private funds, and partly by the Government. As elsewhere in North Africa, the European population is much better educated than the mass of the natives.

The Country's Economy. In all three countries agriculture is the principal occupation of the natives. The chief crops are wheat, barley, oats and other cereals. Tobacco is raised extensively in Algeria. Olive oil is produced in large quantities, notably in Tunisia, where in the south large tracts are covered with cultivated olive groves. Cork and almonds are produced in Morocco, while citrus and other fruits are widely grown in the warmer zones of all three countries. Wine is an important product in Algeria and Tunisia. Sheep, goats and cattle are raised in large quantities throughout French North Africa. Fisheries are found along the coasts and provide food both for local consumption and for export.

Algeria produces important amounts of iron ore (2,325,500 metric tons in 1937), phosphate rock (566,571 metric tons in 1937), lead and zinc. Morocco's leading mineral product is phosphate (1,447,327 tons in 1938), while zinc, lead, iron ore and manganese are also extensively mined. Phosphate rock is also the principal export mineral of Tunisia (1,608,045 metric tons in 1939), with iron ore coming second (764,731 metric tons).

By and large the manufacturing industries of French North Africa are still in a rudimentary stage—a fact which greatly handicapped the use of that region as a base for the Allied invasion of southern Europe in 1943. Present plans call for an acceleration of the process of industrialization.

Figures for foreign trade have not been available for a number of years, but those for the prewar years reveal that by far the lion's share went

to France. Internal communications are provided by a railroad network that extends all the way from the Gulf of Gabes to Marrakesh. Altogether there are over 5,000 miles of railroad, supplemented by several thousand miles of improved highways. Modern ports exist at such places as Casablanca, Oran, Algiers, Philippeville, Bône, Tunis, Sousse, and Sfax. There are naval bases at Mers-el-Kebir and Bizerte.

ROBERT GALE WOOLBERT.

FRENCH OCEANIA. The French possessions in the eastern Pacific, comprising several groups of islands. The principal groups are: Society, Marquesas, Tuamotu, Leeward (Îles sous le Vent), Gambier, Austral, and Rapa Islands. Clipperton, an island 670 miles southwest of Mexico has been included in French Oceania. Tahiti (600 sq. mi.; pop. 19,029 in 1936), of the Society group, is the main island. Total area, 1,520 square miles. Total population (November 1, 1941), 51,221. Capital: Papeete (on Tahiti), 11,614 inhabitants in 1941. Chief products: copra, vanilla beans, phosphate, and mother-of-pearl are the chief products. Foreign trade (1943): imports 97,223,000 francs; exports 142,645,000 francs. The budget (1944) was balanced at 43,449,000 francs. The Government is under the control of a Governor, assisted by a private council and an assembly of financial and economic delegations. Governor, Colonel Orselli.

FRENCH SOMALILAND. This is the smallest of the four parts of Somaliland: 9,071 sq. mi. Its importance is due to its location near the southern end of the Red Sea, where it functions as a French counterpart to Aden. The capital, Jibuti, also serves as the maritime terminus of the railroad to Addis Ababa, through which is channeled much of the foreign trade of the Ethiopian highland. This transit trade was valued at 393,000,000 francs in 1944. In 1944 steam merchant vessels numbering 1,391 stopped at Jibuti. Otherwise the colony has little importance, salt being the only product of value (42,645 metric tons were exported in 1944). The census of 1944 disclosed a population of over 40,000, divided as follows: 14,056 Somali, 3,392 Arabs, 21,546 Danakil, and less than a thousand Europeans. The population of Jibuti in 1944 was 10,421. French Somaliland is administered by a Governor, with the assistance of an Administrative Council.

The principal *raison d'être* of Jibuti, the capital of French Somaliland, has been to provide an ocean gateway for the foreign trade of central Ethiopia. Much of this trade normally has passed, since World War I, over the Addis-Ababa–Jibuti railroad, operated by a French company. During World War II the equipment and roadbed of this line had deteriorated sadly, thus injuring both Ethiopia and Jibuti. In order to facilitate the rejuvenation of the railway, the French and Ethiopian governments entered agreements by which its administration was returned to the Franco-Ethiopian Company and an arbitral tribunal was set up to settle disputes over the terms of the concessions (see ETHIOPIA).

Early in the year work was commenced on a large and modern airport near Jibuti, capable of serving large planes operating on lines to the Orient and East Africa. On June 6 a weekly air service was opened between Jibuti and Addis Ababa by the Ethiopian Air Lines, a company controlled by the Ethiopian government but operated by the American T.W.A. firm.

ROBERT GALE WOOLBERT.

FRENCH WEST AFRICA. A vast territory comprising the administrative divisions indicated in the following table:

Colony	*Sq. mi.*	*Pop. (1943)*	*Capital*
Dahomey	43,232	1,436,000	Porto-Novo
Dakar[a]	60	182,000	Dakar
French Guinea	96,886	2,164,000	Conakry
French Sudan	590,966	3,875,000	Bamako
Ivory Coast	184,174	4,124,000	Abidjan
Mauritania	323,310	377,000	——[b]
Niger	499,410	2,058,000	Niamey
Senegal	77,730	1,727,000	St. Louis
French West Africa	1,815,768	15,943,000	Dakar

[a] Including dependencies [b] The lieutenant governor of Mauritania resides in St. Louis, Senegal

Togo, a narrow mandated territory lying between Dahomey and the Gold Coast with an area of 21,893 sq. mi., included under this heading, though administratively it is separate from French West Africa.

Population. Out of the 16,000,000 inhabitants only some 37,000 are Europeans. The natives are largely Sudanese Negroes, but with strong Hamitic influences in many areas of the Sudan and in the Sahara. These elements are the results of migrations from North Africa and the Nile Valley, which also introduced the Mohammedanism professed by many of the inhabitants in the drier parts of French West Africa. The southern zone, lying in the belt of tropical rain forests, is largely pagan except where Christian missions have made converts.

Elementary schools are small in number and are provided partly by the government and partly by missionaries. In 1946 the education budget was 106,000,000 francs. The natives are encouraged to learn French, which is useful for obtaining employment in the government service or in European-owned enterprises. By and large the French authorities appear less concerned to preserve the native's culture and tribal institutions than are the British in their West African colonies. The William Ponty Normal School at Dakar provides training for various professions. In the same city is the French Black Africa Institute for the study of African culture and languages.

The Country and Its Economy. The climate, which is hot and wet on the Guinea coast, becomes progressively drier to the north. In terms of vegetation this means that the coastal forest shades off into the open savannas of the Sudan and finally into the world's greatest desert—the Sahara. Occupations are conditioned by these climatic circumstances. In the south the important products are cocoa, coffee, palm oil and kernels, tropical fruits and rubber. In the drier regions they are cotton, cereals, peanuts, cattle, sheep and goats, and hides and skins. Figures illustrating the volume of exports are (for 1944) peanuts, 116,551 tons; cocoa, 14,674 tons; palm kernels, 50,082 tons; coffee, 24,455 tons. Interesting native industries are to be found in Dahomey and Togo, and to a lesser extent in some of the other colonies.

There are over 2,700 miles of railway and many thousands of miles of usable roads; a considerable section of the middle Niger River is navigable by shallow-draft vessels. The principal ports are Dakar, Conakry, Abidjan-Port Bouet and Cotonu. In 1944 the total value of imports was 2,077,100,000 francs, and of exports 1,726,175,000 francs.

Government. For French West Africa as a whole there is a Governor-General, assisted by a Council. Each colony, including the Circumscription of Dakar et Dependences, has in addition its own Governor. The Governor-General supervises the administration of these governors, but leaves to

them the details of local government. There is a general budget covering certain matters of common interest to all of French West Africa; but there are also separate budgets for each of the colonies. The financial estimates for 1946 showed a budget balanced at 6,156,727,000 francs. Senegal, being one of the older French colonies, has been represented in the Parliament at Paris by an elected deputy.

Very few of the native are French citizens (except in and around Dakar) possessing the political rights associated with that status. However, the proposals of the French Provisional Government for a federal union between France and her colonies provide for a greater equalization of political status among all the inhabitants of the French empire. The capital is at Dakar. Togo is a Class B Mandate; its capital is Lomé.

Events. The year opened in Senegal with a serious strike by the workers of Dakar, which soon spread to other cities such as St. Louis. The situation became so grave that the Minister of Colonies felt obliged to fly down from Paris and investigate on the spot. One of the chief complaints of the strikers had to do with inequalities of pay. General economic conditions also contributed to the prevailing unrest. Goods were scarce and prices were high. Many of the shortages of manufactured articles continued despite the return of peace, due to exchange difficulties and lack of shipping.

The plan for developing the vegetable oil production, mentioned above under FRENCH EQUATORIAL AFRICA, applied with especial pertinence to West Africa, where the principal export is peanuts grown for their oil content. According to this scheme, the vegetable oil output of French West Africa was to be increased until it reached 250,000 metric tons a year. New methods of cultivation were to be introduced by the government and the natives encouraged to adopt them.

During the year an interesting trend in the field of religion was noted and widely commented on—the constant advance of Islam in West Africa. According to the best available statistics, one-half the population of French West Africa is Moslem, with the proportion of non-Moslems steadily diminishing. Various reasons for this phenomenon were advanced, the most obvious one being the simplicity of Islamic doctrine and the ease with which it could be embraced by unsophisticated people. In contrast, it was pointed out, the complexities and inter-denominational divergencies (and antagonisms) of the various Christian sects only confused the native mind.

French Togoland. An account of France's policy in her African-mandated territories will be found in the section on the French Cameroun under FRENCH EQUATORIAL AFRICA. In Togoland the local chiefs opposed the continued separation of the country into British and French zones, and some of them sent telegrams to the United Nations seeking redress. The Ewes in particular complained that the artificial frontier interfered seriously with their freedom of movement and the natural development of their economy.

ROBERT GALE WOOLBERT.

FRIENDS, Society of (Quakers). A religious society founded in England by George Fox (1624–90) which stresses the direct guidance of God through revelation to the individual, sometimes called the Inner Light, and as a consequence practices group silent waiting for a realization of the presence of God instead of outward sacraments, repudiates war, holds all human life sacred, and seeks to serve mankind through its American Friends Service Committee. There are a number of branches of Friends among which are: the Conservative Friends; the General Conference of Friends (Hicksite); the Philadelphia Yearly Meeting (Orthodox); and the largest one, The Five Years Meeting of Friends (Orthodox), with headquarters in Richmond, Indiana.

GAMBIA. A British colony and protectorate in West Africa, occupying each bank of the Gambia River for a distance of 300 miles from the coast. Area, 4,068 square miles. Population (1940 estimate), 205,000. Capital, Bathurst, on the Island of St. Mary (69 square miles). With the exception of the Island of St. Mary the colony is administered as a protectorate under a governor, assisted by an executive council and a nominated executive council. The appointment of Andrew B. Wright as Governor and Commander in Chief was announced on November 21, 1946. The country exports groundnuts, palm kernels, beeswax, and hides and skins, and produces a variety of crops for domestic consumption. Clothing, agricultural and domestic implements, and a variety of consumer goods are imported. The chief source of revenue is customs.

GENERAL ACCOUNTING OFFICE. An agency of the U.S. Government, created independently of the other agencies, to secure the uniform settlement and adjustment of all claims and accounts in which the United States is concerned. Comptroller General of the United States in 1946: Lindsay C. Warren.

GENERAL EDUCATION BOARD, The. An institution incorporated by an act of Congress in 1903, with the stated object of promoting education within the United States of America without distinction of race, sex, or creed. The present program of the Board is restricted almost entirely to the support of educational work in the southern states.

The Board is empowered to spend the income and the principal of its funds. From the time of its establishment until December 31, 1945, its expenditures totaled $277,075,776.35. As of December 31, 1945, its unappropriated assets amounted to $16,717,886.06.

In 1946 grants were made to the following institutions toward endowment: University of the South, Sewanee, Tennessee, and Washington and Lee University, Lexington, Virginia ($500,000 each); Southern Methodist University, Dallas, Texas, and Hendrix College, Conway, Arkansas ($200,000 each); Millsaps College, Jackson, Mississippi ($100,000); Virginia Union University, Richmond ($75,000); Randolph-Macon Woman's College, Lynchburg, Virginia, and Bennet College, Greensboro, North Carolina ($50,000 each). To Hampden-Sydney College a grant of $200,000 was made toward endowment and the construction of a library building.

Appropriations for library development were made to Shaw University, Raleigh, North Carolina ($40,000); the State Agricultural and Mechanical Institute, Normal, Alabama ($32,500); Converse College and Wofford College, Spartanburg, South Carolina ($30,000 each); the State Agricultural and Mechanical College, Orangeburg, South Carolina ($23,300); and Phillips University, Enid, Oklahoma ($20,000). The Alabama State Board of Education received $75,000 toward the cost of constructing and equipping a library building at the State Teachers College.

Other appropriations included $54,700 to the

University of North Carolina toward support of a department of nutrition in the School of Public Health; $23,000 to the Mississippi State Department of Education toward the support of the Coordinated School Health and Nutrition Service, and $12,000 for training courses in connection with this Service; $18,000 to the University of Tennessee for scholarships in nutrition; $13,500 to the North Carolina State Department of Public Instruction, and $12,250 to the University of North Carolina for their research-use education programs; $20,000 to Duke University for research and consultation on the marketing of forest products; $15,000 to the University of Alabama for study of the iron and steel industry of the Southwest; $12,000 to the University of North Carolina for a survey of coastal fisheries and related industries; $25,000 to the United Negro College Fund, Inc., toward a fund for maintenance of privately supported institutions for Negroes; $23,400 to Mississippi State College toward research in farm management, and $20,000 to this institution for the support of a research worker at Alcorn Agricultural and Mechanical College to cooperate in studies of the economic, educational, and health conditions of Negroes.

President of the General Education Board: Raymond B. Fosdick. Secretary: William W. Brierley. Offices: 49 West 49th Street, New York 20, New York.

GENERAL LAND OFFICE. An Office of the U.S. Department of the Interior which supervised the survey, management, and disposition of the public lands and the minerals therein. Consolidated with Grazing Service to form the Bureau of Land Management, July 16, 1946.

GEOGRAPHICAL NAMES, United States Board on. A branch of the United States Department of the Interior, successor to the United States Geographic Board, which is the official authority on the use of geographic names by the Government. Director: Meredith F. Burrill.

GEOLOGICAL SURVEY. The year 1946 was in many ways a year of transition, and the activities of the Geological Survey were of necessity divided. A large proportion of the work consisted of the preparation of reports on the varied projects carried on during the war. As the year progressed, however, an increasing amount of attention was given to the Survey's normal function of long-range geologic research and mapping.

Funds. During the fiscal year 1946 there was available for expenditure under the direction of the Geological Survey a total of $15,209,654. Of this amount $7,416,860 was appropriated directly to the Geological Survey, and $7,792,794 was made available by other Federal agencies, and by States and their political subdivisions.

Geologic Branch. *Metals and Non-metallic Minerals.* In the study of metals, 45 major projects were carried on, of which 14 were completed during the year. About two-thirds of these investigations were of deposits of the base metals—copper, lead, zinc, and iron—with particular attention paid to lead and zinc. Because of the great depletion of our reserves of the base metals during the war, plans for the future call for continued extensive exploration. The major projects were carried out in 18 states, in 7 of which part or all of the work was done in cooperation with State agencies. Three major projects were carried out in the Missouri River Basin as a part of the development program of the Department of the Interior.

In the field of non-metallic minerals, fluorspar investigations were continued in 7 States. Field investigations of pegmatite deposits containing mica, lithium minerals, tantalum, beryllium, and feldspar were curtailed, but reports on the deposits of 6 States have been completed, and reports on other States are nearing completion. Deposits of high-alumina clays were studied in a number of States, and reports on the investigations are being prepared. Field surveys designed to aid the search for new deposits of talc and potash were continued, and maps showing the location of non-metallic mineral resources and construction materials in the Missouri River Basin were prepared and published.

Fuels. Continuing its program of regional geologic studies to aid the intensified search for new supplies of oil and gas, the Geological Survey conducted investigations in 20 States. The work was directed primarily to the accumulation and interpretation of fundamental geologic data necessary to delineate new areas in which the geologic structure is favorable for the occurrence of oil and gas. Thirty-four reports, covering these oil and gas studies were printed by the Geological Survey, and more than 23,000 copies were distributed.

To appraise the potentialities and reserves of substitutes for liquid petroleum the Geological Survey, in cooperation with the Navy Department and the Bureau of Mines, completed during 1946 a study of the oil-shale deposits in Naval Oil Shale Reserves Nos. 1 and 3 in western Colorado. The results of this work showed much larger resources of shale oil than had originally been anticipated and served to emphasize the need for additional work of a similar nature in large, essentially unsurveyed areas of oil shale in the Rocky Mountains and other regions.

The search for new supplies of coking and special purpose coals was continued during the year, in Colorado, Washington, Alabama, Georgia, and Maryland, largely in cooperation with the Bureau of Mines.

Areal Geology. Extensive and systematic geologic surveys planned for the postwar years were begun during 1946. These surveys are to provide geologic maps containing basic data needed by soil scientists and engineers, as well as in the search for hidden deposits of minerals. During 1946, 13 quadrangle geologic maps covering approximately 1,650 square miles in the States of Massachusetts, Montana, North Dakota, Rhode Island, and Wyoming were completed. Mapping was under way in 28 additional quadrangles in these States and in New Mexico and Texas. Work on a small-scale geologic map of the State of South Dakota was completed, and work on a similar map of Montana continued.

Special projects carried out in 1946 included a study of shore-line changes in Massachusetts, where much property was damaged during the great storms of 1944–45, and a study of the occurrence of selenium in bedrock in South Dakota to delineate belts wherein plants concentrate amounts of selenium that are poisonous to grazing stock.

Engineering Geology. Engineering geologists within the Geologic Branch are devoting their efforts to the collection, interpretation, and dissemination of geologic data for the use of engineers. This group has its headquarters in Denver, Colorado, where they work in close cooperation with the engineers of the Bureau of Reclamation. During 1946 they prepared preliminary maps showing deposits of sand and gravel and other construction materials in six States and made detailed engineering geologic studies of four quadrangles in North Dakota. Other

projects that were begun during the year and will be continued in 1947 include studies of reservoir sites, landslides, mine waters, and various kinds of subsurface data of interest to construction engineers.

Basic Research. Specialized groups of scientists in the Geological Survey spent most of their time during the war in furthering the work of the economic geologists on projects directly concerned with the search for needed war materials. In this group are chemists, physicists, petrologists, and paleontologists. In increasing numbers they are now being returned to their normal pursuits. The chemists and physicists are conducting basic research on analytical methods and determinations of radioactivity, on spectrographic procedures and X-ray techniques. The petrologists are expanding their studies of many minerals, particularly clay minerals and related substances that eventually may become valuable sources of aluminum. The paleontologists, while continuing to support the work of the economic geologists by furnishing data derived from the study of fossil collections, are resuming general studies of fossil faunas and floras that were interrupted by the war.

During 1946, airborne magnetometer surveys covering about 70,000 square miles were made by the Geological Survey in cooperation with the Office of Naval Petroleum and Oil Shale Reserves. These and other surveys were made over potential oil-producing areas in northern Alaska, Wyoming, New Mexico, and the coast of the Gulf of Mexico, and over magnetic iron regions in the Adirondacks. The instrument has been modified and field methods have been improved so that large areas can now be surveyed more rapidly and more accurately than by ground magnetic methods—the airborne method is 50 to 500 times faster and provides more detailed data.

The evaluation of domestic resources of fissionable materials needed in atomic research has entailed field work in 32 States and has disclosed much new and valuable information. Reconnaissance investigations of state-wide areas have successfully delimited local areas in which detailed study was warranted, and research on the geophysical and geochemical properties of these materials, conducted both in the field and in the laboratory, has resulted in a further refinement of the techniques of exploration and detection.

Military Geology. The Military Geology unit in 1946 prepared 12 comprehensive intelligence reports for the Corps of Engineers. These reports concerned terrain, water supply, construction materials, mineral resources, and correlation of mine-detector performance with soil and rock characteristics. A special terrain intelligence folio on the Fort Knox Reservation, Kentucky, was prepared at the request of the Armored Forces and will be used for training purposes. A manual of military geology, requested by the Engineer Board, Fort Belvoir, for use in officer training was virtually completed at the end of the fiscal year.

Beginning in October 1945 a large group of geologists was assigned to Natural Resources Section, General Headquarters, Supreme Command Allied Powers, in Tokyo, forming the main part of the Mining and Geology Division. They made studies of Japan's mineral resources, metallurgical plants and processes, coal, construction materials, and water resources. Many short reports were prepared, and by the end of the fiscal year 25 special reports were virtually completed. Similar work was done in Korea.

Field work was begun on a geologic map of Okinawa. This work is expected to be completed in the coming year, when similar studies will be undertaken in Palau, Guam, Yap, and Saipan.

Detailed geologic studies of Bikini Atoll were made prior to the atomic bomb tests. These surveys were repeated after the bombing to determine the effects of the explosions on the islands, the reefs, and the floor of the lagoon.

Two geologists assigned to the General Engineer District, Manila, are engaged in making surveys of construction materials to aid in the rebuilding of Manila. They are also cooperating with the Philippine Bureau of Mines in a program designed to develop the valuable mineral deposits of the islands.

Work in Other American Republics. In Mexico, Cuba, Brazil, and Peru, 14 mineral commodities were studied cooperatively under the auspices of the State Department. Geologic investigations were carried on in the vicinity of Mexico's new volcano, Paricutín; a geologic map of the area was completed, and a new topographic map, based on recent air photographs, is being compiled.

In Chile a reconnaissance of the mineral deposits of the Southern Archipelago was begun, and ground-water studies were undertaken in the central and northern parts of the country. These investigations, which were requested and financed by the Chilean government, will be continued into 1947.

Some of the tin deposits of Bolivia and the manganese deposits of Cuba were investigated with funds furnished by the Foreign Economic Administration.

Four training grants were awarded to Latin-American students of geology. Two of these were given to Mexicans and two to Peruvians, the funds being supplied by the State Department.

Alaskan Branch. The work of the United States Geological Survey in Alaska is directed primarily toward aiding in the development of the mineral resources of the Territory. This has involved field investigations in the course of which the known productive camps have been examined and about 300,000 square miles, or approximately half of Alaska, has been mapped topographically and geologically on reconnaissance standards. Many of the activities carried on during the war years and continuing through the 1946 field season have been relatively detailed examinations of specific areas or deposits, the results of which have been made available to appropriate war agencies, largely in the form of preliminary reports and maps. The distribution of some of these publications is still restricted because of War Department regulations, but they are being released to the public as rapidly as possible.

The war years have seen a greatly increased public interest in Alaska, which is already beginning to express itself in long-awaited postwar ventures on the part of both private interests and Territorial management. The objectives of the Alaskan Branch in its expanded postwar program reflect this interest. The investigations by the technical personnel engaged in field studies during the field seasons, which are short because of the unusual climatic conditions, has resulted in the issuance of a series of reports covering detailed examinations of a large number of mineral deposits, some whose worth was previously undetermined, others whose very existence was uncertain. Though few of these deposits have as yet reached the stage of commercial development, many stand available as sources of added raw materials to replenish the stockpiles that dwindled during the war. As a result of these relatively limited studies the known reserves of

ITALY AS A REPUBLIC

Above The anti-monarchist result of the national referendum brings a cry of "Viva La Republic" from 300,000 persons assembled at the Piazzo del Popolo, Rome (*I.N P.*). *Inset:* Premier Alcide de Gasperi asks the Paris Peace Conference to ease the terms of the proposed peace treaty for Italy (*Press Association, Inc*).

JAPANESE WAR CRIMINALS STAND TRIAL

Upper left: Sir William F. Webb, President of the International Military Tribunal for the Far East, Tokyo (*Suzuki*). *Center*: Prisoners' dock in the court room, May 3, 1946 (*Asahi Shinbun*). *Lower right*. War criminals, including Tojo, are driven from S[illegible]

LIFE IN JAPAN IN 1946

Above: The war crimes trials in Tokyo, where former Premier Hideki Tojo and twenty-seven other alleged criminals are tried for atrocities against humanity (*U.S Signal Corps*). *Below:* A bombed-out family has dinner in the "dining room" in the streets of Yokohama (*European*).

Above Scene from *Anna and the King of Siam,* Twentieth Century Fox film, starring Irene Dunne and Rex Harrison *Center.* (left) *Stormy Waters,* starring Michele Morgan and Jean Gabin; (right) *The Last Chance,* starring Luisa Rossi and John Hoy (M-G-M International Films), *Below: Henry V,* technicolor film, produced and directed by Laurence Olivier, starring Laurence Olivier, presented by Theatre Guild Incorporated.

many of the economically important minerals in Alaska have been substantially increased. For example, quicksilver, formerly considered a resource of only minor significance, has become one of the important commodities now commercially produced in Alaska. The exploration by Alaskan Branch geologists have revealed additional coal reserves estimated at millions of tons.

The mining of gold has been Alaska's major industry. Gold produced prior to 1940 amounted to more than $600,000,000. The year of lowest mineral production was 1927. Since that time, owing in part to the increase in price of gold from $20.67 per ounce to $35.00 per ounce and in part to improved mining methods, the quantity of gold produced has increased more than 260 percent and its dollar value has increased more than 430 percent. Although seriously curtailed during the war, gold mining has recovered somewhat since the cessation of hostilities and the recovery is expected to continue.

As by-products of the production of gold, silver worth more than $14,000,000 and lead worth nearly $3,000,000 have been produced. The increase in the amount of silver has been in proportion to the total quantity of gold produced, because all crude gold contains a few percent of silver. The amount of lead has varied in proportion to the amount of gold taken from lode mines, because lead is a by-product of lode-gold mining.

During the 1946 field season there were 31 Geological Survey projects in progress in Alaska. They included both reconnaissance and detailed studies, of immediate and long range scope. In brief, they were directed toward the following objectives: systematic study of the Juneau gold belt; appraisal of the gold and quicksilver resources of the Kuskokwim area; the geology and mineral resources of northern Chichagof Island and the Blashke Islands; a systematic start on investigation of the non-metallic mineral resources of Alaska; five field projects and associated activities connected with investigation of the petroleum possibilities of extreme northern Alaska; two similar projects covering petroleum possibilities in southern Alaska; three separate investigations of Alaska coal resources; three coordinated studies of permafrost (permanently frozen ground) phenomena; four related projects dealing with the geologic history and volcanology of the Aleutian Islands and Alaska Peninsula; four field topographic mapping projects, in addition to the preparation in the United States of maps covering thousands of square miles of Alaska terrain, by photogrammetric methods, utilizing air photographs; and the initiation of a long range investigation of surface and underground water resources of Alaska.

The efforts of the Alaskan Branch, never numbering more than the 53 geologists at its present peak and through most of the half century of its life only between 5 and 10, have been widely spread over most of Alaska's nearly 600,000 square miles of country and have resulted in the accumulation of a considerable body of sound and lasting information; but the task ahead is tremendous.

Activities of the Alaskan Branch were transferred in 1946 to the appropriate functional branches so that proper coordination and integration of all Alaskan activities will now be attained through a Staff Geologist for Territories and Island Possessions attached to the Director's office. This reorganization within the Geological Survey was decided upon after long study of the many problems arising out of the great increases in Alaskan activities and Geological Survey responsibilities.

Topographic Branch. Topographic maps are fundamentally essential to a survey of the country's resources and are highly valuable for the economical and efficient planning of drainage, flood control, irrigation, water supply, hydro-electric, and transportation projects; they minimize the number of expensive field surveys needed in connection with the location of transmission lines, railways, highways, canals, tunnels, airports, and industrial plants and thereby reduce the cost of construction; they provide topographic data essential to the proper location of frequency-modulated and television radio stations; and they are essential for recording and correlating data obtained from geologic investigations, thus aiding immeasurably in the location, evaluation, and development of our mineral wealth. Maps of this kind provide information necessary for the proper classification and best utilization of the public lands, the conservation of the soil, and the administration and protection of the forests, both State and National.

Topographic mapping in the United States has proceeded at such a slow pace that only a relatively small part of the country may be considered sufficiently well mapped to meet present-day requirements. Half of the nation is without topographic maps; of the maps available to the other half, some are considered adequate for present-day requirements, but others are too obsolete to meet the varied needs. In the vast domain of public lands, enormous areas have never been mapped; consequently the administrative officials responsible for enforcement of the public land laws are without detailed knowledge of their extent, the character of the terrain, their intrinsic value, or the possibility of their development.

Recognizing the urgent need for topographic maps, the Geological Survey is preparing a report reviewing the status of mapping. A program of sufficient scope to provide adequate maps for the entire Nation within a period of 20 years is being submitted, with recommendations for the enactment of legislation that will make this program effective. The entire 20-year program has been evaluated in its relation to the needs of all Government agencies in order to avoid duplication of effort, to assure uniformity in mapping, to utilize the most efficient modern methods, and to provide the essential maps when and where needed.

Work on the International Map of the World on a scale of 1:1,000,000 was continued by the Section of Cartography. Six sheets were in progress—Austin (H-14), Mississippi Delta (H-15), Los Angeles (I-11), Savannah (I-17), Mt. Shasta (K-10), Lake Erie (K-17), and Cascade Range (L-10). At the end of the year two sheets were in course of publication—Hatteras (I-18) and Chicago (K-16).

Preparation of the transportation map for the Public Roads Administration was continued. Compiling, inking, lettering, and editing was in progress for the States of Louisiana, Nevada, Ohio, West Virginia, Alabama, and Indiana. Eight sheets in Virginia and the sheet for Washington and vicinity were transmitted for publication; 10 of the 33 sheets in Texas were published.

A complete revision of State base maps on a scale of 1:500,000 was started during the fiscal year. Compiling, inking, and lettering is in progress on maps for the States of Wyoming, New Jersey, Massachusetts, Rhode Island, Connecticut, and Delaware.

The Columbia River Basin map was completed and printed.

During the year 166 quadrangle maps were edited for publication, of which 137 were for multi-

color photolithography and 29 for engraving; 150 quadrangle maps, 19 State maps, and 14 State index maps were prepared and edited for reprint editions; 100 maps and diagrams that had been prepared as illustrations for geologic reports were edited; and 345 proofs of all kinds were read. On June 30 maps in the process of reproduction included 54 for engraving and 72 for multicolor photolithography; maps being edited or awaiting editing included 29 maps for engraving and 17 for multicolor photolithography; and 256 maps remained on hand for preparation for reprinting.

The principal work of the Section of Photomapping is the production of topographic maps from aerial photographs by stereophotogrammetric methods and the production of planimetric maps and planimetric bases for topographic field surveys by both stereophotogrammetric and graphic methods.

Topographic maps of areas in the United States produced during the year by these methods covered approximately 9,396 square miles; planimetric and base maps covered an area of approximately 10,630 square miles. Topographic maps of foreign areas for the War Department, produced in manuscript form from aerial photographs, covered an area of approximately 9,522 square miles. In addition, Geological Survey personnel, working in cooperation with the Tennessee Valley Authority, either completed or supervised additional foreign mapping for the War Department in the amount of 2,482 square miles.

The Washington office maintains a general file of aerial photographs utilized in the work of the Geological Survey and of aerial photographic negatives that have been purchased under photographic contracts. Through this office contacts are maintained with other Governmental agencies involved in aerial photographic work.

Map Information Office. During the fiscal year a great expansion of the activities and facilities of the Map Information office was begun. During the years this office was relatively dormant because of necessary restriction upon the dissemination of map information and other terrain data. Since the close of the war a greatly increasing volume of requests for map information has been evident, not only from our own map producing units but from other agencies and from the general public. It has therefore become necessary to completely reorganize previous facilities for the dissemination of map information and considerably broaden the scope of service heretofore available. Several specialized units have been developed within the new Map Information Office for this purpose, namely: Topographic Maps; Aerial Photography; Map Control; General and Foreign Maps; and a service facility for the preparation of reports, exhibits, and index and progress maps.

During the six months that the Map Information Office has been functioning with additional personnel the number of visitors and the volume of inquiries, both by letter and telephone, have greatly increased, thus reflecting the attitude of the public to the advantages of such a service.

Water Resources Branch. The need for information on our water resources is evidenced by the steadily increasing number of requests from Federal, State, county, and municipal authorities in all parts of the country for investigations of the availability and chemical quality of water. This information is essential to successful planning and construction of projects related to many purposes, including irrigation, inland navigation, power production, industrial installations, municipal supplies, and flood control, which involve the storage, control, or use of water, and therefore require continuous and up-to-date records concerning its fluctuations in quantity and quality, and its availability and utility. The needs arise from greatly increased use of water from shifting of population, as a result of establishment of new industries in areas that were previously rural or thinly settled; from the expansion of existing industries; and from our needs for increased production of power and agricultural products. Programs of water investigations are accordingly being expanded in all sections of the country.

Normal growth in the use of water has been accelerated and the need for information concerning it intensified by new basin-development projects, patterned in concept, but apparently not in organization, somewhat after the Tennessee Valley Authority. The Missouri River Basin is now being developed for flood control, irrigation, navigation, and water power. Similar development programs for other basins, such as those of the Arkansas and Columbia Rivers, are expected to follow. Such projects rest primarily on the availability and use of water. They require, therefore, much more comprehensive investigations of the water resources of those basins than have heretofore been considered urgent.

Major development and reconversion projects involve the use of water in large quantities. Reliable information concerning the available supply must be obtainable before such projects can be safely planned and satisfactorily executed. Water investigations by the Geological Survey precede and must be closely coordinated with the programs and projects of constructing and operating agencies. Realization of the need for coordination is demonstrated not only in connection with the trend toward basin development but also by the cooperative grants made by States and municipalities, which in 1946 aggregated more than $1,600,000, and by other Federal agencies, which provided to the Survey more than $1,300,000 for special water investigations made at their request.

The Survey's investigations of water have always been made chiefly from field offices, and the decentralization has become even more marked in recent years; in 1946 the work was conducted from more than 100 field offices, with one or more such offices in every State and in the Territory of Hawaii. This decentralization has resulted in a high degree of efficiency and economy of work and in better service to the public. Through the field offices close contacts are maintained with local Federal, State, and municipal officials, and the interests of cooperating agencies are served. The Survey's field offices are local sources of information as to available water resources, fluctuations in the ground water table, and fluctuating stage and discharge of surface streams.

Funds aggregating more than $5,000,000 were available for water investigations in the fiscal year 1946. Of that amount about 41 percent was appropriated by Congress, about 33 percent was contributed by States and municipalities, and about 26 percent was provided by other Federal agencies.

Conservation Branch. The Conservation Branch classifies the public lands of the United States as to mineral and water resources and supervises operations on public, Indian, and naval petroleum reserve land leases, permits, and licenses, for the development of these vital natural resources. The work requires the maintenance of a headquarters staff in Washington and a field staff competent to solve problems of geology, engineering, economics, and administration in complying with legislation

enacted by the Congress, which contemplates that this Nation's resources shall be developed and produced by private enterprise in accordance with approved methods. The activities include field investigations, the preparation of maps and reports dealing with water power, fuels, minerals, and chemicals essential to the postwar economy of the United States, and "on-site" supervision of mining and drilling operations essential to the production thereof.

Initial or revised definitions of the known geologic structure of 71 producing oil or gas fields were prepared and promulgated; geologic appraisal was made of 90 unit-plan or participating-area submissions; some 58 special reports were rendered to the General Land Office on new discoveries of oil or gas on or adjacent to Federal lands, including 22 applications for the royalty benefits of the act approved December 24, 1942 (56 Stat. 1080), for the discovery of new oil and gas fields or deposits during the war emergency; and, for a variety of extra-departmental agencies concerned with the disposal of acquired lands of the United States, determinations were made of the potentialities for fissionable materials of some 970 land parcels in various States, Territories, and possessions, pursuant to Executive Order No. 9701 of March 4, 1946, and to authority for such determinations delegated to the Geological Survey by Departmental Order 2188 of April 19, 1946.

The Geological Survey, in the performance of its functions, provides technical service and assistance to the Office of the Secretary of the Interior, the Office of Indian Affairs, and the Bureau of Land Management in the administration of mineral leases, permits, and licenses, and related problems. It also serves as consultant to the Department of Agriculture on mining permits and leases under the jurisdiction of that Department and supervises production of minerals from public lands by the Metals Reserve Company and the War Assets Administration, successor to the Defense Plant Corporation. Under supervision as of June 30, 1946, were 555 properties on public-domain land under lease, permit, and license, 235 properties on Indian land under lease or mining permit, in 14 States and Alaska.

The production of potassium continued to increase under the impetus of the demand for food production both at home and abroad. More than 99 percent of the national output is produced by four Government lessees, three in New Mexico, one of which operates on public and State land, and one in California, which operates on public and fee land. Prospect drilling in advance of mine development in New Mexico during the year was added substantially to known reserves.

Phosphate production from public domain increased 70 percent over the previous year, and further increase is anticipated as phosphate leases recently issued get into production.

Most of the output of sodium products from public domain is from Searles Lake, California. Refined salts from that source include potassium, borax, soda ash, salt-cake, bromine, burkite, and sodium lithium phosphate. During the war these chemical products were utilized in the manufacture of war materials, such as percussion caps, bombs, flares, shells, smokeless powder, synthetic rubber, armor plate, range finders, bomb sights, and fire-control apparatus. Sodium products are also used in the production of glass, enamel ware, porcelain, soaps, medicines, ferrous alloys, kraft paper, and flame-resisting paints and for fertilizer, water treatment, cleansers, and numerous other purposes for which consumption is expected to continue at war-time rates.

The Oil and Gas Leasing Division supervises operations for the discovery and production of petroleum, natural gas, gasoline, and butane occurring in public lands of the United States, in naval petroleum reserves, and in all Indian lands subject to Departmental jurisdiction, both tribal and allotted, except those of the Osage Nation, in Oklahoma. During the year these duties were accomplished through 18 field offices and suboffices in California, Colorado, Montana, New Mexico, Oklahoma, Utah, and Wyoming.

On public lands, 8,750 oil and gas properties were under supervision at the end of the fiscal year, aggregating 6,034,397 acres in 20 States and Alaska.

Drilling on public lands during the year included the spudding of 496 wells and the completion of 550 wells, 386 of which were productive of oil and gas and 164 of which were barren. In all, 12,124 public-land wells, including 6,589 capable of oil and gas production, were under supervision on June 30, 1946.

On Indian lands the work of oil and gas lease supervision involved 4,931 leaseholds in 10 States, containing at the end of the year a total of 7,525 wells, 4,042 of which were productive of oil or gas and 163 of which had been completed during the year.

On behalf of the Navy Department supervision was continued over operations for the production of oil, gas, gasoline, and butane from 21 properties under lease in Naval Petroleum Reserve No. 1 in California. Production from 286 active wells on this reserve aggregated 3,918,600 barrels of petroleum, 3,890,000,000 cubic feet of natural gas, and 9,313,000 gallons of natural gasoline and butane, having an aggregate royalty value of $727,328.

On War Department lands in the Rio Vista gas field near San Francisco, California, the work included the consideration and approval of a number of the revisions in participating percentages for these lands and the computation of royalties due the United States on the gas production allocated to the lands in the amount of 4,397,930,000 cubic feet with a royalty value of $190,600.

Publications. During the year 59 printed publications were issued by the Geological Survey.

Also, during the year, the Division of Map Reproduction printed 1 geologic folio, 59 newly engraved topographic maps, 143 multicolor topographic maps, 13 planimetric maps, 51 preliminary geologic maps, and 6 special maps, making a total of 273 new maps printed and delivered. Reprint editions of 292 engraved topographic maps, 7 multicolor maps and 122 photolithographed State, geologic maps and planimetric, preliminary, and other maps were printed and delivered. Of new and reprinted maps, 694 different editions, amounting to 1,712,610 copies, were delivered.

The Division of Distribution received during the year a total of 722 separate publications, comprising 36 new book reports and pamphlets and 3 reprints; 51 preliminary maps and charts in the series of strategic minerals investigations; 222 new or revised topographic and other maps; 2 Tennessee Valley Authority maps with contours; 408 reprinted maps (topographic, advance sheets, and planimetric); and 1 new geologic folio (No. 227). The total units received numbered 56,720 books and pamphlets (including reprints) 56,765 copies of revised index maps, 1,656,185 topographic and other maps, and 4,540 geologic folios, a grand total of 1,774,210.

The division distributed 66,607 books and pamphlets, 650 geologic folios, and 1,154,793 maps, a grand total of 1,222,050, of which 580 folios and 991,659 maps were sold.

DON L. CARROLL.

GERMAN LITERATURE. The year 1946 will probably always be the most chaotic year in the history of German literature. It is almost impossible to review the situation. There exist at present at least nine different areas or varieties of German literature, each subject to different influences and each dependent on different authorities and tendencies, none of which can be called legitimate. Germany has licensed publishing houses in four political zones of occupation, and as far as can be seen, they produce different types of literature according to the directives or the prevailing mood in these zones. The Russian zone obviously favors Johannes R. Becher and his former friends in Russian exile. Britain permits licensed publishers like Goverts in Hamburg, the United States has publishers in Wiesbaden, Munich, Frankfurt and Heidelberg. France has chosen Baden-Baden as a literary center. Leipzig, the old capital of the German book trade, seems thoroughly destroyed. A fifth variety of German literature within Germany is actually managed and financed by occupation forces. The writers here are mainly German "collaborators," many of whom were closely allied to the Nazi Reichsschrifttumskammer a short while ago. Numerous literary magazines have made their appearance. We mentioned (see YEAR BOOK for 1945) *Die Neue Rundschau*, still published by Bermann-Fischer outside of Germany, in Stockholm. In Heidelberg, guided by the philosopher Karl Jaspers, *Die Wandlung* is published. A group of writers belonging to the former staff of the independent and democratic *Frankfurter Zeitung* are at present editing *Die Gegenwart*. Alfred Doeblin, now a French occupation official, edits a rather confused, neo-Catholic magazine, *Das Goldene Tor*. French existentialism enjoys close intellectual relations with the German philosopher Heidegger, in Freiburg; Heidegger is recognized as the founder and prophet of existentialist doctrine. Next to these five intra-German literary zones, we have a rather active literary movement in Austria and a tremendously strong and vital literary activity—closely connected with Germany—in Switzerland. Then there are the European centers of refugee literature in Amsterdam and Stockholm, bound to lose their importance before long; and finally, the strong center of German literature in the United States and certain other countries of this hemisphere.

For some strange reason, it is forbidden to export books from Germany, so that it is impossible to know exactly what is going on behind the paper curtain in the literary field inside of Germany. We have to rely on occasional smuggled volumes and on the reports of returning travelers. Gigantic quantities of German books in homes, shops, and libraries have been destroyed. The demand for books far exceeds the supply. There seems to be a great and genuine urge to read the books of exiles and of banned foreign authors. But the sources of intellectual food are extremely scarce. Literary denazification has partly succeeded. The questionable group which ironically calls itself "inner emigration" has replaced the Nazi favorites of blood and soil. The most famous members of the "inner emigration"—after their mouthpiece Frank Thiess had been revealed as a fascist sympathizer—are the novelist Ernst Wiechert and the poet Werner Bergengruen. To this group may be added Friedrich Alexander Schroeder, Hans Carossa, Erich Kaestner, Friedrich Georg Juenger, Ernst Juenger, Reinhold Schneider, and—far above the others of the group—the noble and venerable figure of Ricarda Huch, who is probably the most distinguished purely literary writer inside of Germany today.

Ernst Wiechert's recent publications are *Der Totenwald* (an epic of his incarceration in a concentration camp), *Rede an die Deutsche Jugend, 1945, Okay oder die Unsterblichen* (a weak political satire), and *Märchen*. A volume of poems by Bergengruen, *Dies Irae*, is one of the most widely read new books. We have seen a volume of collected poems by Erich Kaestner *Bei Durchsicht Meiner Bucher*. A volume of essays by Ricarda Huch is announced: *Urphänomene*, and probably the most important postwar document of intellectual Germany is Karl Jaspers' small book, *Die Schuldfrage*.

Switzerland has done exceedingly well in building a shelter for homeless German literature. If one looks at book production of 1946, Switzerland is, indeed, the only place where something like "European culture" remains visible. Production of books in this country has advanced (see SWISS LITERATURE). We find a great number of new publishing houses, printing the best of American, English, French, German and Italian literature. Among the many American books are works by Thoreau, Hawthorne, and Melville, and most of the modern best sellers, as well. Many German books are published under a double imprint—both a Swiss and German publisher being listed—or contain the printed provision that they can be sold only outside of Germany, probably because they have not been duly licensed by one of the occupation authorities.

The outstanding literary event of 1946 is the awarding of the Nobel Prize to the German-born, naturalized Swiss poet, Hermann Hesse. Hesse, born in 1877 in Calw, founded his reputation as a distinguished, sensitive, rather remote poet in 1904 with his novel, *Peter Camenzind*. Others of his better known books are *Unterm Rad, Knulp, Demian*, and *Steppenwolf*. Many consider his lyrical qualities as higher than his ability to write fiction.

There has been no visible addition recently to German literature in the field of fiction or poetry. But we find a great number of philological, philosophical, historical, biographical, and scientific books of interest or of importance. There is a book on America by Victor Vinde. Fabian von Schlabrendorff has written the story of the secret fight against Hitler in *Officiere gegen Hitler* (to be published in the United States by Macmillan). H. B. Gisevius, a supposed Nazi who collaborated with the American Secret Service, tells his story in *Bis Zum Bittern Ende*. Tristan Busch's *Entlarvter Geheimdienst* has aroused a good deal of interest.

The former Austrian chancellor, Kurt Schuschnigg, has described his adventures in *Ein Requiem in Rot-Weiss-Rot*, to be published here by Dutton. There are at least two books on Thomas Mann: *Thomas Mann* by Ferdinand Lion, and *Stefan George and Thomas Mann* by Hans Albert Maier.

Among other recent books are *Goethe und die Weltliteratur*, by Fritz Strich; *Mimesis, Reality in Western Literature*, by Erich Auerbach; and *Deutche Literaturgesukichte in Grundzuegen*, by L. Beriger, W. Burkhard, E. Ermatinger, F. Strich and others. A new book by Alfred Weber ought to be of great interest: *Abschied von der Bisherigen Geschichte*, with the subtitle, *Defeat of Nihilism?* an analysis of the present historical situation.

There is a new Schubert biography by Walter and Paula Rehberg. The German edition of Erich Maria Remarque's *Arc de Triomphe*, has been published in Switzerland. A Bismarck biography of three volumes by Erich Eyck has recently appeared, and by the same author, *Die Pitt's und die Fox'*.

Among other new publications are an interesting travel book by R. Katz, *Auf dem Amazonas*, and an excellent biography of Wilhelm Röntgen by Friedrich Dessauer. Friedrich Muckermann, the famous German Catholic liberal, has written a book on the Russian philosopher, Wladimir Solowiew. Hermann Scherchen, the conductor, has published a number of essays on music, *Vom Wesen der Musik*. Emil Ludwig has produced an ill received pamphlet against Siegmund Freud. The famous German historian, F. Meinecke, has published *Die Deutsche Katastrophe*, under the imprint of Brockhaus, Wiesbaden and Aero of Zurich. The Austrian, Jakob Haringer, has had a volume of poems, *Das Fenster*, published; Lernet Holenis, two plays: *Saul, Alkestis*, and Erika Brecht, *Erinnerungen an Hugo von Hofmannsthal*.

The remnant of the Ullstein publishing house has begun to reprint German classics in Vienna. In this field, too, the Swiss have done some excellent work. The Antil-Verlag in Zurich, for instance, has brought out a beautiful edition, in five volumes, of Novalis' collected works, as well as a Theodor Storm in six volumes. A remarkable achievement is the *Schweizer Lexikon* in seven volumes, a collective undertaking of five Swiss publishers and the first reliable German encyclopedia in a long time.

Of special interest to a small but enthusiastic circle of followers will be two new books by the psychoanalyst, C. G. Jung, *Aufsaetze zur Zeitgeschichte* and *Psychologie der Übertragnug*.

It seems that the most important center of German literature is still the United States. Thomas Mann, recovered from serious illness, is putting the finishing touches to his great forthcoming contemporary novel about a German composer (*Dr. Faustus. The life of the German Composer*, Adrian Leverkuehn).

Stefan Zweig's last book, his unfinished biography of Balzac, has become a great success. Lion Feuchtwanger has finished a big novel on Benjamin Franklin and Mirabeau; its German title will be *Waffen für Amerika*. Hermann Kesten has had a well-deserved success with his novels, *The Twins of Nuremberg* (*Die Zwillinge von Nurnberg*) and *Ferdinand and Isabella*. Leopold Schwarzschild's new biography of Marx will soon be published by Scribner's. Leonhard Frank's novel, *Mathilde* (Simon and Schuster) is in the process of translation. *The Magician*, a collection of short stories by the late Bruno Frank, has been well received. Alma Werfel-Mahler's recollections of Gustav Mahler, and Bruno Walter's autobiography have aroused great interest in musical circles The Schocken Verlag, formerly of Germany and Palestine, newly established in this country, has announced a ten-volume German edition of Franz Kafka's collected works edited by Max Brod—the extraordinary posthumous fame of Franz Kafka is steadily growing, as indicated by a great number of articles and even books about his life and work.

E. Th. A. Hoffmann's *Tales* has been published in an authoritative edition, edited by Christopher Lazare. The Pantheon publishing house, already credited with Grimm's Fairy Tales, has published a splendid edition of Gustav Schwab's *Gods and Heroes*. And, finally, the interesting autobiography of the German-born painter, George Grosz, *A Little Yes and a Big No*, though written in English, ought to be mentioned.

It is to be hoped that the present diaspora of German literature will soon be ended—technically and spiritually.

MARTIN GUMPERT.

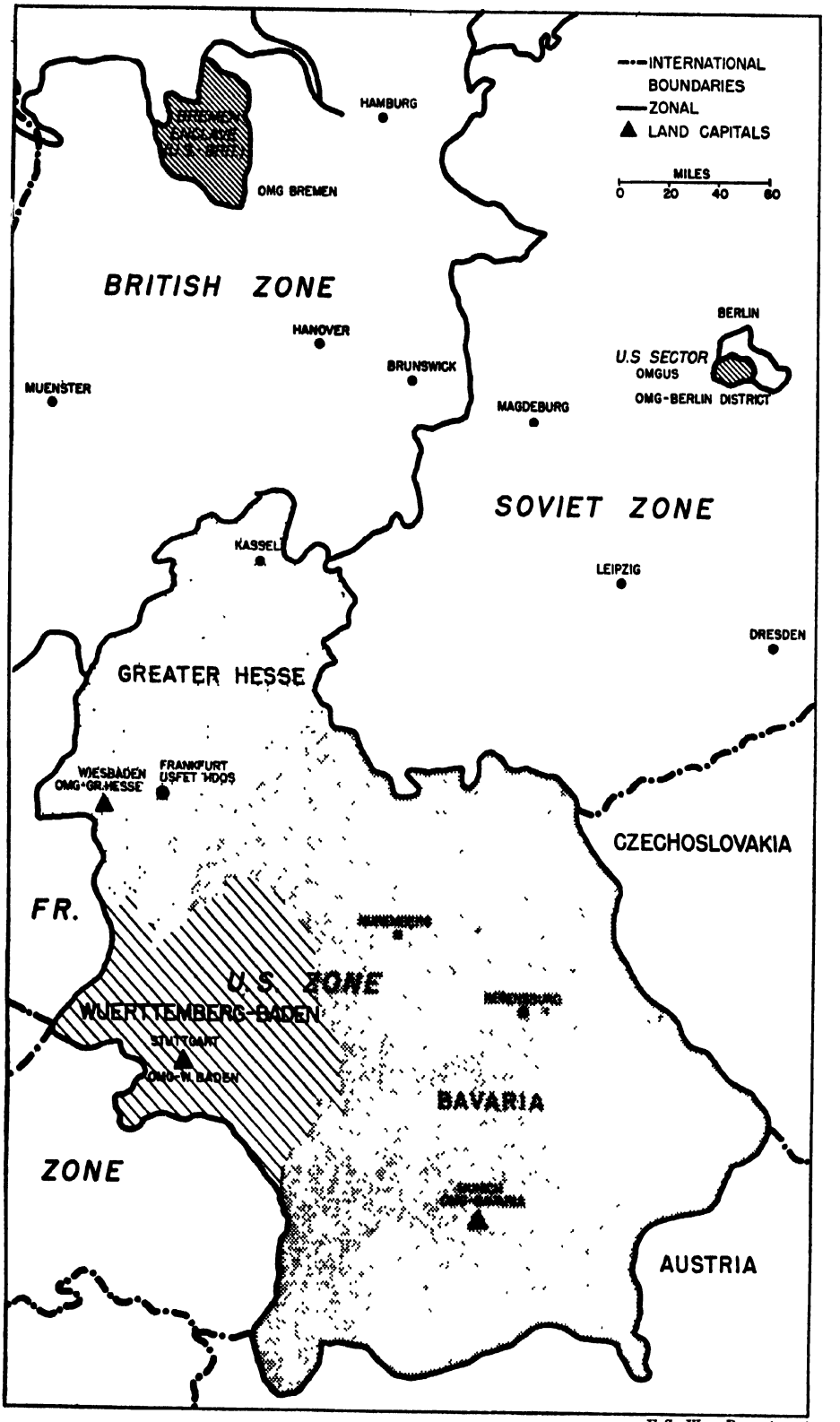
GERMANY. A former Federal republic of Central Europe, wholly occupied by Allied military forces for an indefinite period. It is divided into four zones of occupation: Russian (east), American (southwest), British (northwest), and French (west). The former capital, Berlin, is similarly divided into four zones of occupation.

Area and Population. The total population of Germany, exclusive of displaced persons and ex-prisoners of war, was estimated at 62,800,000 in June, 1946. This population was divided substantially as follows: United States Zone: 18,700,000; Soviet Zone: 16,600,000; British Zone: 21,800,000; French Zone: 5,800,000; City of Berlin (joint occupation): 3,100,000.

Government. By virtue of the declarations of June 5, 1945, the Governments of the United States of America, the Union of Soviet Socialist Republics and the United Kingdom, and the Provisional Government of the French Republic have assumed supreme authority in Germany in all fields and on all levels of administration. This authority is exercised by the Soviet, United States, British, and French commanders-in-chief, each in his zone of occupation. The control of Germany rests in the hands of a Control Council, a quadripartite body composed of the commanders of the four occupying powers. The American member of this council is General Joseph T. McNarney, who is also in command of all American forces in Europe. Immediately under this organization stands the Coordinating Committee, another four-power group, consisting of the officers directly concerned with Military Government. Lt. General Lucius Clay is the American representative on the committee, assisted by Mr. Robert Murphy, his political adviser. General Clay is in command of the Office of Military Government for Germany (U.S.), located in Berlin, which is responsible for the administration of the United States Zone of Germany. The highest level German civilian organization operating under OMGUS is the Laenderrat or Council of States, composed of the Minister-presidents of the three Laender in the U.S. Zone: Bavaria, Greater Hesse, and Württemberg-Baden.

In June, 1946, the United Kingdom accepted the invitation of the United States to the other occupying powers to collaborate with the U.S. Zone in establishing unified economic administration. This resulted in the establishment of a Bipartite Board, operating separately from the Control Council, with a distinct Secretariat to serve it. This Board has bipartite control over Food and Agriculture, Trade and Commerce, Industry, and Transportation. It is contemplated that Communications and Finance will be added in the near future. The area of Greater Berlin is administered by an inter-allied governing authority (Kommandantur) consisting of the four local commandants and their technical staffs. As a result of the Potsdam (Berlin) Conference of July 17 to August 2, 1945, a large area of eastern Germany formerly included in the Soviet zone of occupation was placed under Polish administration. For the governmental set-up in Germany prior to the surrender of that country see YEAR BOOK for 1944, p. 248.

Events, 1946. German history, in the first full year



U.S. War Department

of peace, was marked by four outstanding developments: (a) A gradual shift from military rule to representative government; (b) substantial progress towards a reunion of the four zones of occupation; (c) the end of the Nuremberg Trial, and (d) the preliminary spadework on the peace settlement.

The New Masters at Work. The highest authority in the occupied Reich, the Allied Control Council, underwent further changes in personnel, early in the year. On February 12, it was announced in London that Air Marshal Sir Sholto Douglas would succeed Field Marshal Montgomery in his triple capacity as Commander-in-Chief of the British forces in Germany, Military Governor of the British zone, and British Member of the Allied Control Council. On April 10, Russia announced a similar change for its zone of occupation, and representation on the Council, with the appointment of Gen. Vassily D. Sokolovsky as successor to Marshal Zhukov. Previously, in November 1945, Gen. Joseph T. McNarney had replaced General Eisenhower as American Commander-in-Chief and Council Member. The French representative on that body, Gen. Pierre Koenig, who had been appointed in July 1945, remained at his post.

Despite many technical difficulties, and recurrent minor crises reflecting the international situation, the Allied Control Council performed a great deal of team-work during the year. For an absolute novelty in international cooperation, it worked out unexpectedly well. With most of the year's work done, Lieut. Gen. Lucius D. Clay, McNarney's deputy, was able to declare on November 4, that disagreements with the Soviet representatives on the Council now were largely matters of detail rather than basic principles.

The first major task confronting the Control Council in 1946 was the curtailment of Germany's industrial capacity and restriction of its output to articles not usable for war, as stipulated by the Potsdam Agreement.

The key decision to be made in this matter was that of the allowable steel production. On this all-important issue, the four members of the Council held widely divergent opinions. The Russians would limit Germany's steel output to 3,000,000 ingots tons a year; the British, in whose zone the bulk of the Reich's heavy industries was located, argued for a 10,500,000-ton limit. The Americans were willing to go as high as 9,000,000 tons, while the French suggested a figure closer to that of the Russians.

After several weeks of debate and haggling, the Council arrived at a compromise which was announced on January 11. The maximum capacity of the steel industry to be left in Germany was fixed at 7 5 million ingot tons, with actual production limited to 5,800,000 tons a year, except by special permission of the Control Council. Although this compromise was hailed, in the January report of OMGUS (Office of the Military Government of the United States) as "a signal triumph for the quadripartite control machinery," subsequent developments indicated continuing differences in interpretations. The British, who had only reluctantly accepted the compromise figure, tried repeatedly during the year to reopen the question; their argument that the economic recovery of Europe hinged on a substantial improvement of industrial activity in Germany, and that this could not be achieved without a higher steel output, was increasingly supported by public opinion in other Allied countries.

On February 2 the Control Council took another important step toward the elimination of Germany's war potential by prohibiting the production of synthetic gasoline, rubber, ammonia, primary aluminum and magnesium, ball and taper roller bearings, heavy machine tools, heavy tractors, and certain war chemicals. Primary war industries, such a. plants turning out arms, aircraft, and seagoing vessels, had already been banned in 1945.

Germany's entire seagoing merchant fleet, a total of 1,189,600 gross registered tons valued at $80,000,000, was divided between the Allies under an agreement announced on March 7. Only 200,000 deadweight tons of inland and coastal shipping, which the Control Council had declared essential for Germany's peacetime economy, were exempted from this measure.

The final determination on the levels of peacetime industry that Germany would be permitted to have was completed by the Council on March 28 —almost two months after the deadline originally set at the Potsdam Conference.

Under this plan, German industrial production as a whole was to be reduced to slightly more than 50 percent of its 1938 levels. The output of heavy engineering trades was limited at 31 percent of that year's capacity; that of plants producing heavy electrical equipment at 30 percent; for machine tools, only 11.4 percent of capacity was allowed. The output of basic chemicals was limited at 40 percent, and that of other chemicals at 70 percent of the 1936 volume, with 80 percent allowed for dyestuffs and pharmaceutical products.

Annual production of passenger automobiles and trucks was reduced to 40,000 in each category, plus 10,000 motorcycles, as many farm tractors, and varying numbers of other vehicles. By 1949, exports and imports are to reach 3,000,000,000 marks each, as compared with 4,800,000,000 and 4,200,000,000, respectively, in 1936.

Among other important measures, effective for all of Germany, taken by the Control Council in the following months, were Law No. 25, approved on April 28, which placed a rigid ban on war research; and a decree issued on May 13 ordering the destruction of all German military and Nazi memorials by January 1, 1947; as well as the confiscation of books glorifying Nazism or militarism.

During the summer frequent charges and countercharges of secret military preparations were bandied about among the Allies. The Russian press accused the British of maintaining German armed forces in their zone; the British retorted by charging the Russians with manufacturing arms in captured German plants.

A suggestion made by Secretary of State Byrnes at the Paris Conference of Foreign Ministers, on May 13, that the Control Council set up special four-power commissions to investigate the state of German disarmament in all four zones of occupation was at first coolly received by the Soviet representative, but was later endorsed by him in a somewhat modified form. It was not until October 2, however, that the Council reached final agreement on the question. Quadripartite inspection teams, empowered to check on the liquidation of German war plants in all zones, were formed shortly later and began their tours in mid-November.

On October 14 the Council adopted two important directives, one extending to all Germany the denazification principle, already practiced in the American zone, the other establishing a firmer control over the German press, which, in a number of instances, had indulged in attacks designed to disrupt unity among the Allies.

The Reparations Problem. Perhaps the greatest obstacle to harmonious relations in the Control Coun-

cil, during the spring and summer of 1946, was the unsolved reparations problem. This, in turn, was closely tied up with the problem of German economic unity, which appeared even more difficult of solution.

Under the Potsdam Agreement, Germany was to be treated by the occupying powers as an economic unit even though politically it had been carved up into four separate zones. This proviso, however, remained a dead letter. In the beginning, this was chiefly the fault of the French, who stubbornly refused to cooperate in any unification measures as long as their demand for separation, in one form or another, of the Rhine-and-Ruhr district from the Reich remained unfulfilled. The French, however, in keeping aloof had at least the excuse that they had not been invited to the Potsdam Conference and were no party to the decisions taken there. The Russians, on the other hand, did not have this excuse and when they, too, failed to cooperate in the unification measures proposed by the other Allies —in particular an export-import program for all of Germany, proposed by the Americans and British —the latter reacted sharply.

On May 25 General Clay ordered a halt on all reparations shipments to Russia from the American zone, except for material already allocated. In announcing his decision to the Control Council, Clay declared he did not wish to endanger further the productive capacity of the United States zone in case it would have to become a self-supporting unit, contrary to the Potsdam stipulations. At a press interview, a few days later, he added that no further contributions to the reparations pool would be made from the American zone "until the economic unity of Germany on which reparations are based has been attained." The British followed suit with a similar embargo on reparations from their zone.

These moves caused considerable annoyance in Moscow, and added to the tense atmosphere which prevailed in Paris when the Big Four Foreign Ministers met again in that city in June. In the course of these discussions, Soviet Foreign Minister Molotov on July 9, startled his colleagues with the statement, "The Soviet Government insists that reparations from Germany to the amount of $10,000,000,000 be exacted without fail because this amount is but a small portion of the enormous damage that has been done to the Soviet Union by German occupation." Secretary of State Byrnes replied that this sum had been mentioned at the Yalta Conference as a basis for discussion but that later, at Potsdam, all, including Stalin, had agreed that it was impossible. The Secretary also gave support to General Clay's action in suspending deliveries on reparations account by stating that, as a result of the failure to treat Germany as an economic unit, the United States was forced to spend $200,000,000 a year for the maintenance of its zone.

Although the dispute was not settled, and General Clay's order was not rescinded, a report released by OMGUS on October 19, disclosed that up to the end of September the Russians had received 15,500 tons of reparations equipment from the American zone, of which the major portion consisted of materials allocated but not delivered when the suspension order went into effect. The report also showed that a total of 658 industrial plants in the three western zones—mostly armament industries—had been approved for reparations deliveries to all countries.

Meanwhile the Russians had not been idle in their own zone. By all accounts, the Soviet Military Government pursued in the territories under its command a reparations policy far more drastic than anything seen in the western zones. Its methods, however, changed repeatedly during the year. In the winter and spring of 1946, hundreds of factories, especially in industrial Saxony and Thuringia, were dismantled and shipped to the Soviet Union. Early in June, however, a sudden halt was called to these removals at a conference in Berlin between the Soviet military authorities and German representatives; these included the heads of the five autonomous administrations in the Soviet zone, viz, the States of Saxony, Thuringia, and Mecklenburg-Vorpommern, and the Provinces of Saxony and Brandenburg,—and the chiefs of the twelve central departments for the zone functioning in Berlin. The conference apparently had a political background and the suspension of the dismantling program was generally linked by observers with the series of elections then about to begin in the Soviet zone (see below).

Then, in June and July, the Russians began to gather together industrial plants, previously seized for reparations, in large combines under Soviet State ownership and control. Practically the entire output of these industries,—which included among others the Leuna Works of Merseburg, the Buna Works of Halle, and the Zeiss Works of Jena—was earmarked for shipment to the Soviet Union.

This practice was sharply protested in a British note made public on August 8, which declared that "Unless and until Germany as a whole has an export surplus the Soviet Government, in the explicit and unambiguous terms of the Potsdam Agreement to which it was a party, is not entitled to take by way of reparation goods currently produced or stocks."

Was it this protest, or dissatisfaction with the outcome of the fall elections in the Soviet zone and in Berlin that caused a new reversal of Russian reparations policy? At any rate, in October a new wave of factory removals got under way. This was accompanied by the transfer to Russia of several thousand German skilled workers, engineers, and technicians from both the Soviet zone and the Soviet sector of Berlin.

The first news of this move was broken on October 22 by German Social-Democratic leaders in Berlin who charged that the Russians were carrying out mass deportations in the spirit of "the testament of Peter the Great." Promptly confirmed by American and British officials in Berlin, the report caused a major sensation and the ensuing uproar kept the city astir for weeks. The matter was brought up before the Kommandantur, the Allied governing body for Berlin, which passed it on to the superior authority, the Control Council. The latter, on November 4, quickly dropped the subject from its agenda, after the Soviet representative had produced an Allied Proclamation of August 13, 1945—which the other members of the Council apparently had forgotten long since—explicitly authorizing the use of German "labor, personnel and specialists . . . in Germany or elsewhere as the Allied representatives may direct." The Russian member also declared that no force had been used and that the Germans involved had signed contracts for employment in the Soviet Union. At the same time, the Russian-controlled Berlin radio said that no more German workers were needed in the U.S.S.R. and that "therefore, no further applications are required."

Early in November General Clay confirmed widespread rumors that he had been conducting "exploratory" talks with Marshal Sokolovsky, covering the entire range of American-Russian dis-

agreements on Germany. There were growing indications of an early, comprehensive deal under which the Russians would abandon their unilateral practices in Germany as well as their opposition to zonal unity, and would permit a substantial increase in Germany's steel output, in exchange for a larger slice of reparations from the western zones than had been contemplated by the Potsdam Agreement. Such a deal would be tied in with both the unification measures already in progress in the American and British zones, and the tentative approach to a peace settlement with Germany.

Toward German Unity. Noting, in its March 1946 report, that "widely different systems of economic planning and administration and consequently unrelated economic programs have developed in each of the four zones," the American Military Government took the initiative in ending this state of affairs so contrary to the letter and spirit of the Potsdam Agreement. When it became apparent that French opposition to any kind of unification program could not be overcome, and the Russians did not yield to the pressure put on them in the reparations question, the only way left to end this deadlock was a bipartite arrangement involving the American and British zones.

The first definite proposal to merge the two zones economically was made on July 15 by Secretary of State Byrnes in a broadcast from Washington. The Secretary also disclosed that he had instructed the American authorities in Germany to establish economic collaboration with any of the occupying powers willing to cooperate with the United States zone "in essential administrative matters like finance, transport, communication, trade and industry." On July 20, General McNarney repeated this offer to the Control Council but obtained a favorable response only from the British representative.

After waiting in vain several days for the Russians to join in, the British Government on July 29 announced its acceptance of the American proposals. Orders were sent immediately to British military authorities in Germany to proceed with setting up joint economic agencies. This move was denounced on August 4 by the Moscow radio, which declared that the amalgamation of the two zones was "insisted upon first of all by the big American and affiliated British monopolies which seek the complete subordination of German economy to their selfish interests."

On August 10, the French Government formally rejected the British-American merger project and proposed instead the creation of inter-Allied economic bureaus dependent on the Control Council. This suggestion was turned down by the United States and Great Britain on the ground that the Potsdam Declaration had stipulated the establishment of German, not Allied, central agencies in the economic field. After that, the French consistently blocked any unifying measures proposed in the Control Council. They even refused to introduce in their zone the new German postal stamps approved by the Council on September 17 for the other three zones. And on October 29, their opposition killed a motion supported by the American, British, and Russian members of the Council to permit the amalgamation of political parties on a nation-wide basis.

A great step forward on the road to German unity was taken on September 6 when Secretary of State Byrnes in an important speech at Stuttgart reviewed and restated American policy in Germany. Significantly, the Secretary's address was delivered at the seat, and before representatives of the Laenderrat, the German agency created in October 1945 to coordinate and supervise the policies of the three autonomous states of the American zone, Bavaria, Württemberg-Baden, and Greater Hesse. From the start, the Laenderrat was the nearest approach to a representative provisional German Government yet developed in any of the four zones and it was obviously designed to form the nucleus from which a future central German government could be developed.

In his Stuttgart speech Byrnes made it clear that he favored the early establishment, not only of central economic agencies, but also of a provisional German government, which he envisioned as "a German national council composed of democratically responsible minister-presidents or other chief officials of the several states or provinces which had been established in each of the four zones." (On a smaller scale, the Laenderrat of the United States zone constituted just such a council.) The provisional government or national council, Byrnes suggested, should then be charged with preparing the draft of a democratic constitution for Germany.

In the meantime considerable progress had been made in the military and civilian committees charged with the task of working out the details of the proposed fusion of the American and British zones. At an early stage in these discussions it was realized by all concerned that such a merger could be made effective only if the political organization of the British zone were adapted to the pattern already existing in the American zone. Up to that time, the evolution of self-government in the British zone had lagged far behind developments in the United States zone. The British military authorities were still exercising direct control at all administrative levels, with the subordinate German agencies fulfilling only advisory functions. The discrepancy between the two regimes was so wide that, in the preparatory talks on the proposed merger, the delegates from the American zone were empowered to make decisions on the spot, whereas those from the British zone had to refer all suggestions back to their military chiefs.

In the last days of August the British Military Government took a decisive step to overcome this variance and place the German officials in the two zones on an equal footing by transforming the provinces of Hanover, North-Rhine-Westphalia and Schleswig-Holstein into autonomous states (Laender) on the model of those existing in the American zone. The small Laender of Oldenburg, Brunswick, Lippe and Schaumburg-Lippe, which had previously existed in the British zone were marked for absorption into Hanover, which thereafter would become the state of Lower Saxony. Hamburg and Bremen were again to become independent cities with their own administrations and legislative councils. The entire reorganization was scheduled to be completed by January 1, 1947, at which time the British military authorities promised to devolve "full governmental powers" on the new German state and city administrations.

On the same date the economic merger of the American and British zones was to become effective with the assumption of administrative responsibility by five bizonal agencies created early in September. These were: (a) a central economic bureau set up at Minden; (b) a department of finances, with headquarters at Frankfurt; (c) a department for food and agriculture at Bad Kissingen; (d) a department for transportation, with headquarters at Bielefeld and a branch office for maritime ports and coastal shipping in Hamburg; and (e) a department for communications at a still unspecified location.

With economic unification thus well under way, the Laenderrat on September 28 proposed to the American and British military governments that the two zones also be politically joined together under a bizonal council of states. This request, however, was turned down because, as General Clay explained early in October, "such political unification of the two zones might be misunderstood by the Russians and French, and thus be a bar to chances for unification of all four zones, which we very much desire."

On October 4–5 the first interzonal conference of minister-presidents and other chief executives of the state and city administrations in the American and British zones was held at Bremen. The chief officials of the Soviet and French zones had also been invited to attend, but excused themselves, for obvious reasons. The conference unanimously called for an early establishment of the German national council proposed in Byrnes' Stuttgart address. It added the suggestion that this provisional government be placed under the parliamentary control of a Volksrat (people's council), composed of representatives of the various state assemblies.

In a similar vein, Foreign Secretary Bevin told the House of Commons on October 22 that he envisioned a German central government consisting of two chambers, one to be popularly elected, and the other representing the regional units. There might be a supreme court similar to that of the United States, he added.

A week later, Premier Stalin, in a formal statement to the United Press declared "It is necessary to re-establish, not only the economic, but also the political unity of Germany." He also expressed himself in favor of the early establishment of a German central administration.

This important declaration of the Soviet leader, heralding a reversal of the earlier Soviet policy in the matter, came in the midst of the above-mentioned informal talks between General Clay and Marshal Sokolovsky on the reparations problem and related issues. It also coincided with the first definite preparations for a practical approach to the most difficult problem of them all: the peace treaty with Germany.

Laying the Basis for Peace. Although it was generally agreed that Germany was the principal question in Europe, progress toward a settlement with that chief enemy country was slow and gingerly, especially in the first part of the year. It was as though all the Allies desired to put off as long as possible the problem that loomed as the greatest potential source of discord among them. But no matter how skilfully avoided, the German problem was there, and, as the months went by, its impact was felt increasingly at international conferences.

Officially, Germany was not on the agenda of the Big Four Foreign Ministers' meeting in Paris. A French attempt to include it in the discussions was turned down on April 26, by British Foreign Secretary Bevin on the ground that he could not commit himself on Germany until the British Dominions, as well as Germany's small neighbors, had been consulted. As the conference proceeded, however, the United States delegation became more and more convinced of the vital necessity of early discussions on Germany.

In a frontal attack on the problem of security that had worried the French most, and, to a lesser extent also, the Russians, Secretary of State Byrnes on April 29, proposed a 25-year four-power treaty to keep Germany disarmed. This suggestion, however, was coolly received by the Soviet delegation and nothing came of it. On May 15, shortly before the conference adjourned, Byrnes urged his colleagues to agree to the holding of a special peace conference on Germany no later than November 12. In the meantime, he suggested, the Ministers' deputies should go to work on a draft settlement. This proposal was again turned down by the Russians and the German problem was left up in the air. On July 10, after the Council of Foreign Ministers had resumed its meetings in Paris, Byrnes repeated his suggestion that special deputies be appointed to deal with Germany. Soviet Foreign Minister Molotov considered this procedure premature but agreed in principle to a special meeting on Germany before the end of the year. In one of his most important speeches of the year, Molotov also outlined to the Council his ideas on the future of Germany. He opposed French claims for separation of the Ruhr and strongly repudiated the "Morgenthau doctrine" of an agrarian Germany.

The Paris Peace Conference in August also kept Germany off its agenda, limiting its discussions to the former satellite countries. But, as a *New York Times* correspondent put it, "Like an ugly duckling that nobody wants to see, the German problem has wandered in the back door of the Paris Conference." It proved impossible to draw up settlements with the former Axis countries without constantly harking back to the dominant question—Germany.

In his Stuttgart speech (see above) Mr. Byrnes again called for a start toward a peace settlement with Germany. "More than a year has passed since hostilities ceased," he said, "The millions of German people should not be forced to live in doubt as to their fate. It is the view of the American Government that the Allies should, without delay, make clear to the German people the essential terms of the peace settlement which they expect the German people to accept and observe."

A change in Soviet policy, parallel to that on reparations and German economic unity, became discernible in October. Without fanfare, the spadework on the German treaty was begun in the meetings of the Allied Control Council in Berlin. By October 31, the ground had been sufficiently cleared to permit Mr. Byrnes to announce in Washington that consideration of the German peace treaty would begin about November 20 after the Foreign Ministers, meeting in New York, had finally disposed of the five treaties with the former Axis satellites. The Secretary also disclosed that he had requested General Clay and his political adviser, Ambassador Robert D. Murphy, to come to New York for consultation prior to the start of negotiations on Germany.

From Military Rule to Self-Government. Political life in Germany received a powerful impetus in 1946, as in one zone after another the voters were called to the polls in the first free elections since 1933. In line with these democratic processes, a gradual retraction of military authority and a corresponding expansion of German administrative responsibility took place everywhere, though in widely differing proportions.

The American Military Government took the lead in both respects. Having already developed the framework of German self-government in the fall of 1945—by setting up three autonomous states linked together through the *Laenderrat*—it proceeded early in 1946 to organize the first elections, far ahead of all other zones.

The first step was the holding of local elections in 11,000 rural communities and townships of less than 20,000 population, on January 20 and 27. Some four million persons were entitled to vote in the three states, and the average turnout was 88

percent. As had been expected, the Christian Democratic Union (Catholic party) scored an overwhelming victory in Bavaria and the largest total for the whole zone, 1,454,779 votes; the Social-Democrats were second with 980,787; and the Communists third with 136,404.

In the second round, on April 28, when elections for county councils (Kreistage) were held in the zone, participation was considerably less, only 72.2 percent on the average. The returns followed closely the pattern of the January polls.

A different picture appeared in the elections held on May 26, in towns and cities of more than 20,000 population. Of 1,684,456 votes cast the Christian Democrats obtained 667,991 as compared with 635,017 for the Social-Democratic party. The Communists polled 149,693, and the Liberal Democrats, who had made a pretty poor showing in the rural areas, garnered 102,584 votes. Participation was about 80 percent this time.

Far more important than any of these preliminary polls were the June 30 elections for constituent assemblies in the three states. Yet, strangely enough, the turnout of voters was less than on any of the preceding occasions—only 70.9 percent on a zone-wide average. Once again the Christian Democratic Union maintained a commanding lead with 2,579,403 votes against 1,815,535 for the Social-Democrats; 406,009 for the Communists; and 386,358 for the Liberal Democrats.

As a result, the Christian Democrats obtained an absolute majority of 109 out of 180 seats in the constituent assembly of Bavaria. In that of Greater Hesse, the Social-Democrats took the lead with 43 seats out of 90, against the Christian Democrats' 34. In the state of Württemberg-Baden, the assembly was composed of 41 Christian Democrats, 32 Social-Democrats, 17 Liberal Democrats and 10 Communists.

Through the summer and fall, the three constituent assemblies were busy approving and amending the constitutional drafts already prepared for them by committees of experts appointed by the state governments. In accordance with the election results, three varying drafts emerged from these discussions and were submitted to General Clay for approval. While the Hessian projects showed a distinct Socialistic trend, the Bavarian draft constitution reflected the conservative, clerical, and separatist tendencies of the dominant Christian Democratic Union.

Württemberg-Baden was the first state to complete its draft constitution which was passed on October 24 by an 88 to 1 vote of the assembly and was approved by General Clay with minor modifications. In giving his approval to the Bavarian constitution on October 26, however, Clay warned that separatist activities would not be tolerated by the Military Government. The general also objected to an article in the Hessian draft which made the nationalization of key industries mandatory. Eventually a compromise was reached under which the socialization issue will be voted upon separately by the people of Greater Hesse. With this reservation, the draft was approved by Clay on October 30.

In their completed form, the three constitutions provide for the election, in each state, of a *Landtag* or Legislature with a four-year term, which in turn elects the Minister-President or Premier. Bavaria alone adopted a bicameral system with a 60-man Senate serving in an advisory capacity beside the Landtag. A proposal to introduce the office of State President into the Bavarian constitution was finally defeated after a bitter and protracted battle in the constitutional assembly.

The completed draft constitutions were submitted for final approval by the electorate on November 24 in Württemberg-Baden, and on December 1 in the state of Greater Hesse and also in Bavaria. Since all three were elaborate compromises between the different views of the major parties, their final adoption was a foregone conclusion. At the same time as the referendum on the constitution, the first ordinary election to the Legislature was held in each of the three states.

With the machinery of democratic government thus set up everywhere in the United States zone, the Military Government prepared to step aside at the end of the year, except insofar as basic occupation policies were concerned. Only demilitarization and reparations will remain as direct administrative responsibilities of the Military Government in 1947, while it otherwise will restrict its activities to observing, inspecting and advising the German civil governments. General McNarney revealed on November 7 that American occupation forces in the European theatre had been reduced to 220,000 and would eventually dwindle to 150,000 when the police-force stage of the occupation begins on or about July 1, 1947. He added that the occupation of Germany would last ten to fifteen years.

Elections in the Soviet Zone. In the Russian zone of occupation, electoral processes were held up for months by a political manoeuver of great moment and decisive impact on subsequent events—the creation of the Socialist Unity Party.

When political life first was revived in the Soviet-occupied areas of Germany, by Marshal Zhukov's order of June 10, 1945, four parties were given legal status. They were the Communist party or K.P.D.; the Socialist-Democratic party or S.P.D.; the Christian Democratic Union or C.D.U.; and the Liberal Democratic party or L.D.P.

During the first months of occupation, the Soviet military authorities maintained an attitude of impartiality and non-interference towards these political groups, all of which were considered to have a fundamentally "anti-Fascist" outlook. Indirectly, however, the Russian authorities gave the K.P.D. preferred status by turning over a disproportionately large number of administrative posts to Communist candidates, both in Berlin and throughout the Soviet zone.

Before long, however, it became evident that the Social-Democrats still were, as they had been in the pre-Hitler period, the strongest political party in Berlin and also in at least some of the Russian-held provinces. The K.P.D., on the other hand, made not nearly as many converts as had been expected. Thus the Soviet Military Government was faced with the disagreeable prospect of seeing its favorite party take a thorough beating at the first free elections, and its appointees being swept out of office and replaced by Social-Democrats.

To forestall such a contingency, the Soviet Military Government agreed with the Communist leaders, Wilhelm Pieck and Walter Ulbricht, that the best course would be to merge the two workers' parties into one to be called the Socialist Unity party or S.E.D. This would be ruled by an ostensibly bipartisan board, but would, in effect, be dominated by the Communists.

The Social-Democratic leaders in Berlin balked at the merger proposal but agreed nonetheless to a limited cooperation with the Communists. In the western zones, however, where they were freer in their decisions, the S.P.D. leaders refused to have anything to do with the Communists. As a result, a serious split developed in the ranks of the S.P.D., which grew worse as Russian pressure on the Ber-

lin faction and provincial organizations in the Soviet zone increased, while at the same time the western leaders of the party stiffened in their stand with the blessing of the American, British, and French military authorities.

On April 7 a break occurred in the Berlin organization of the S.P.D. At a meeting called by "insurgent" Social-Democrats in the western (non-Russian) sectors of the city, Otto Grotewohl, chairman of the party, and several associates were "expelled" and a new board was elected. Grotewohl and his friends, ignoring the action of the dissidents, went ahead with their plans for a merger with the Communists and on April 20 the S.P.D. and K.P.D. organizations throughout the Soviet zone, including the Soviet sector of Berlin, were amalgamated in the new unity party, the S.E.D. Pieck and Grotewohl were elected co-chairmen of the new party, which automatically became the dominant political organization in the Russian-held parts of Germany, while it was not recognized, or even allowed to operate, anywhere else. Thus the political division between the two Germanies, eastern and western, was deepened at a time when, on a different level, attempts to reunite the Reich were in progress (see above).

With preparations for the party fusion well under way, the Soviet Military Government late in March set the dates for the first elections to be held in the zone, municipal in September, county councils and state assemblies in October.

As a prelude to this series of ordinary polls, the state government of Saxony, on June 30, held a plebiscite on whether or not Nazi-owned factories and business enterprises in the state should be expropriated. Since this had already been done by decree of the Military Government, and since, moreover, the other political parties—C.D.U. and L.D.P.—joined hands with the S.E.D. in urging the voters to answer "yes," the result was a foregone conclusion. Of 3,459,658 ballots cast, 2,683,401 or 77.7 percent were "yes" and 571,600 or 16.5 percent were "no" votes.

The first test of party strength in the Soviet zone came at the municipal and communal elections, which were held on September 1 in the state (Land) of Saxony, on September 8 in the province of Saxony and in the state of Thuringia, and on September 15 in the state of Mecklenburg and in the Province of Brandenburg. The turnout was exceptionally heavy everywhere, averaging more than 90 percent.

That the vote was technically fair was attested by impartial observers. American correspondents, who visited polling places in various states and provinces, found no signs of coercion or intimidation and reported that the ballot was secret and the counting fair. They also agreed, however, that in the election campaigns, the S.E.D. had been heavily favored by the Soviet authorities, especially in the allocation of newsprint, paper for handbills and posters, and other campaign facilities. Moreover, in many rural communities, C.D.U. and L.D.P. had been effectively prevented from putting up candidates and the S.P.D., being officially dead in the zone, was not permitted to participate in the voting.

Under the circumstances, it was hardly surprising that the S.E.D. should come out with absolute majorities in all regions. It obtained 55.5 percent of the ballots cast in the State of Saxony; 60.2 in the Province of Saxony; 53.4 in Thuringia; 59.5 in Brandenburg; and 69.9 in Mecklenburg-Vorpommern.

Despite these paper majorities, however, the S.E.D. failed to win the decisive victory which its sponsors, both German and Russian, had expected, and its absolute control of the Soviet zone did not last long. This became evident at the October 20 elections of county councillors and state assemblymen, in the five regions of the Soviet zone.

At these, far more important, elections—the state assemblies were to write new constitutions, like their counterparts in the American zone—9,767,897 voters cast valid ballots, or about 850,000 more than in September. (In the time between the two polls, more persons had qualified for the suffrage, and the number of invalid ballots was considerably less than in October). Of this total, the S.E.D. obtained 4,658,925; the L.D.P., 2,410,146; the C.D.U., 2,398,035; the remainder of the ballots went to various small groups, of which the most important, the Bauernhilfe or Peasants' Aid, garnered 282,930. Thus the S.E.D. lost its absolute majority in all five regions, and in the zone taken as a whole. With the addition, however, of the votes obtained by the allied Peasants' Aid group, it retained slim majorities in the three states of Saxony, Thuringia, and Mecklenburg-Vorpommern.

The British and French Zones Vote. As they lagged behind in the transfer of governmental responsibility from the military authorities to German organs, the British and French zones were also the last to hold elections. The voting procedure was parallel in the two zones: communal elections in rural areas and towns of less than 20,000 population were held on September 15, the larger towns and cities voted on October 13, and at the same time county councils were elected in both zones. Zone-wide polls for provincial legislatures or state assemblies were not expected to take place before some time in 1947.

In the British zone, a voting system markedly different from those applied elsewhere was used. The emphasis was on the election of individual candidates rather than party lists in the traditional German manner. The voting procedure was involved and the results were confusing in that the total of valid ballots cast was far in excess of the number of qualified voters, and the distribution of seats did not wholly correspond to the strength of the various parties.

Contrary to expectations, not the S.P.D., which had received a good deal of unofficial backing by the authorities, but the C.D.U. emerged as the strongest political party in the British zone. On September 15, it polled 6,863,948 votes, or 38.3 percent of the total cast, as compared with 6,267,699, or 34.9 percent for the S.P.D. A large number of "independent" candidates accounted for 2,718,558 ballots, or 15.2 percent of the total. A separatist-minded group in Lower Saxony, the so-called Welfen (Guelph) party, garnered 1,080,185 votes, or six percent; the Communists trailed behind with 992,745 votes, or 5.6 percent.

The distribution of seats resulting from this vote was as follows:

Independents	23,343	seats
C.D.U.	20,621	"
S.P.D.	16,172	"
Communists	694	"

The larger city vote, on October 13, showed a somewhat different picture. This time, the Social-Democrats polled the largest number of ballots cast, 11,179,521, but they obtained only 2,549 seats as against 3,518 for the Christian Democrats with their slightly smaller popular vote of 11,029,953. The Communists, who received the third largest popular vote—2,413,419—had to content themselves with only 139 seats, less than the Lib-

erals with 317 seats (1,988,364 votes) and the Guelph party with 325 seats (1,413,891 votes).

In the French zone, the Christian Democrats took a wide lead at both the communal elections of September 15 and the voting for county councils on October 13. At the former, 2,860,064 persons—about 85 percent of those qualified—cast their ballots of which 1,273,574 went to the C.D.U.; 563,507 to the S.P.D.; 180,466 to the K.P.D.; and 87,015 to the L.P.D.

The Berlin Election. Of all the voting contests in Germany in 1946, none commanded as wide an interest and aroused as much comment as the Berlin municipal election on October 20. For here was the only battleground where the Soviet-sponsored S.E.D. could meet its chief rival, the S.P.D. This was the result of a laborious compromise worked out, on May 29, in the Allied Control Council which decided to give full recognition and liberty of propaganda to both the newly formed S.E.D. and the revived S.P.D. in all sectors of Berlin.

After a bitterly fought campaign, which lasted for several weeks, 2,091,055 Berliners (out of 2,349,722 qualified to vote) went to the polls under the watchful eyes of four occupying powers. Of the valid ballots—only 39,164 were declared invalid—999,170 or 48.7 percent were cast for the S.P.D.; 454,202, or 22.1 percent for the C.D.U.; 405,992, or 19.8 percent for the S.E.D.; and 192,527, or 9.4 percent for the L.D.P.

This sensational outcome of the Berlin contest of strength provided a clear-cut vindication of the assertion by the western S.P.D. leaders that the party merger in April had been a fake, made only at the top without support from the rank-and-file of the Social-Democratic party. The so-called Socialist Unity party not only was foiled in its bid for supremacy in Berlin, but it was relegated to third place, behind the Christian Democratic Union. By the same token, the Berlin election clearly indicated a preference of the German voters for the western rather than the eastern brand of democracy.

As a result of this poll, the S.P.D. took 63 seats in the new City Council, against 30 for the C.D.U.; 25 for the S.E.D.; and 12 for the L.D.P.

The Nuremberg Trial. "Most of Germany's major war criminals will be in their graves well before Christmas." This prediction, made in August 1945 by a member of the four-power committee, devising a legal code and methods of procedure for the trial of Hermann Goering and company, came true—a year later. Not even the experts foresaw at the time the proceedings were started that it would take fourteen months to bring the Nazi ringleaders to the gallows by legal process.

Through winter, spring, and summer, the Nuremberg Trial went its cumbersome course. After the initial spurt of world-wide interest when the trial began on November 20, 1945 (see the 1946 YEAR BOOK), it was deserted by the reporters and almost forgotten by the public, until the inevitable climax. By the time the Nuremberg Trial ended on August 31 with the final pleas of the 21 defendants in the dock, it had become the longest continuous trial in history, with 403 open sessions, during which five million words had entered the records.

The basic verdict of the International Military Tribunal was read on September 30. The court declared the Nazi Leadership Corps, the SS, the SD (Security Service) and the Gestapo to be criminal organizations, but declined to include the SA, the Reich Cabinet, the General Staff, and the High Command in this collective condemnation.

The individual verdicts and sentences were pronounced on the afternoon of October 1. Of the 22 accused only three—Schacht, von Papen, and Fritzsche—were acquitted. Twelve were sentenced to death by hanging: Goering, von Ribbentrop, Keitel, Kaltenbrunner, Rosenberg, Frank, Frick, Streicher, Sauckel, Jodl, and Seyss-Inquart; the missing Martin Bormann also was sentenced to death in absentia. Hess, Funk, Raeder, von Schirach, Speer, von Neurath and Doenitz received prison terms, ranging from life for the first three named to ten years for the last. The Soviet Justice J. I. Nikitchenko dissented in a formal statement from the three acquittals and Hess' sentence of life imprisonment, instead of death.

Sixteen of the defendants appealed their sentences to the Allied Control Council which rejected them all on October 10. Even as the final preparations were made for the hanging of the eleven condemned prisoners, Goering, on the night of October 15, managed to commit suicide by swallowing a vial of potassium cyanide which, as a subsequent investigation showed, he had kept in his possession from the day of his surrender. The other ten were hanged in the Nuremberg jail yard in the early morning hours of October 16.

The seven war criminals sentenced to prison terms were transferred to the Spandau Prison in the British sector of Berlin. Schacht, von Papen, and Fritzsche after their release from the Nuremberg jail were promptly booked for trial before German denazification courts. A number of leading Nazi industrialists and financiers also were expected to go on trial early in 1947, along with the yet untried Reich Cabinet members and war leaders. Most of them will face military tribunals in the American zone. See the article: NUREMBERG TRIALS.

Denazification. The American Military Government's policy of devolving upon the Germans the greatest possible amount of administrative responsibility at the earliest possible time was almost upset, toward the end of the year, by the lack of effective action against Nazi offenders. Following a detailed study of the records of German purge tribunals, the Military Government decided that the mills of denazification not only were grinding with extreme slowness, but were frequently going in reverse.

In an angry speech to the Laenderrat on November 5, the Deputy Military Governor, General Clay, declared himself "sorely disappointed" with the results of the purge so far. "It appears more and more," he said, "that the denazification process is being used to return as many people as possible to their former vocations, rather than to find and punish the guilty." He then gave the three Minister-Presidents of the American zone sixty days to show "real and rapid improvement" in this situation, or else the Military Government would take back the job of denazification "regardless of the effects on the German economy."

This was the sharpest rebuke yet delivered by General Clay to the organs of German self-government, which he himself had done so much to create and advance, and it precipitated a crisis in relations between the Military Government and the German state administrations. Two of the three denazification ministers in the zone immediately tendered their resignations, but these were not accepted. Toward the end of the year, indications were that the German officials and tribunals had taken General Clay's challenge to heart and were acting accordingly. It was not expected that the Military Government would have to take back the responsibility for denazification at the end of the sixty days. But even with all the desired speed and efficiency,

the denazification job was expected to take years. In the American zone alone, General Clay revealed, some 2,500,000 persons were charged with one of five degrees of Nazism, and 72,000 of these were being held in jail or detention camps.

Economic Conditions. The economic situation in Germany remained grave, improving only slightly toward the end of the year. Production, both agricultural and industrial, was highest in the Soviet zone, but sweeping requisitions for the Red Army and on reparations account (see above) reduced the amounts of food and consumer goods available for the civilian population to more or less the same levels as in the western zones. Conditions were worst in the British zone, where they tended to deteriorate rather than improve in the latter part of the year.

At the bottom of the economic crisis in the British zone was a Ruhr coal production altogether insufficient to meet both allotments to the western countries, and minimum requirements of the local industry. Realizing this, the British Military Government in mid-November drastically curtailed deliveries of Ruhr coal to France, despite vigorous protests from Paris.

The unsatisfactory output of coal, like the industrial stagnation in general, was largely due to absenteeism and inefficiency caused by the prolonged, severe food shortage. Rations fluctuated during the year, but remained consistently below minimum requirements. On April 1, the normal consumer ration in the American zone was cut from 1,550 to 1,275 calories daily. In the British and French zones, where outright starvation prevailed in the spring, the daily ration was 1,014 and 1,075 calories respectively. Food riots occurred repeatedly in the British zone, especially at Hamburg, and food thefts were frequent.

In the course of the economic fusion of the American and British zones (see above), food rations were gradually equalized in the two areas and on October 14 they were brought back to the 1,550 calories level. Early in November, however, a new, particularly severe, food crisis broke out in the British zone, causing momentary panic among the Germans and grave concern in London. Food supplies rushed from the United States and from the American zone in Germany temporarily relieved the situation, but the outlook for the winter remained dark.

Industry. Monthly U.S. Zone production of various basic industrial items was at the following levels in August, 1946, in metric tons: Coal (Hard) (This figure includes all zones of Germany): 5,902,200; Coal (Brown) (This figure includes all zones of Germany, exclusive of the French Zone.): 14,310,000; Iron Ore: 70,565; Pig Iron; 25,387; Ingot Steel: 18,834; Copper: 1,334; Lead: 200; Zinc: 166: Aluminum: 897; Magnesium: 36; Iron and Steel Castings: 10,395; Steel Rolling Mill Products: 14,076; Potash: 93,847; Salt: 35,138.

In August, also, monthly generation of electric power was 435,400,000 Kilowatt Hours; production of manufactured gas, 45,327,000 cubic meters; lumber, 282,000 cubic meters.

Agriculture. The following levels are estimated for the harvest of principal crops in the U.S. Zone of Germany for 1946, in metric tons: Wheat: 864,000; Rye: 703,000; Potatoes: 6,046,000; Sugar Beets: 847,000; Barley: 456,000; Oats: 683,000.

Transportation. German railroads in the U.S. Zone were in possession, July 1946, of the rolling stock listed in the table at the top of column 2.

The number of trains operated per day as of July 31, 1945 was as follows: Passenger Trains: 881; Freight Trains: 800; Other Trains: 459; Total Trains: 2,140.

	German	Foreign	Total
Locomotives	7,233	252	7,485
Passenger Cars	11,852	1,324	13,176
Freight Cars	78,050	61,421	139,471

Monthly volume of cargo moved by highway transport, U.S. Zone, was 2,228,941 metric tons in June, 1946. On August 1, 1946, 591 river barges, with a capacity of 597,255 tons, were in operation. Out of a total of 10,570 bridges in the U.S. Zone, 10,501 were in operation at the end of August.

Manpower. German labor offices, at the end of June, 1946, had registered a total of 32,018,000 persons. This total was broken down as follows: U.S. Zone: 6,999,000; Soviet Zone: 8,557,000; British Zone: 11,865,000; French Zone: 2,615,000; Berlin: 1,982,000. It included 16,159,000 male and 15,859,000 female registrations. Of the total, 23,819,000 were employed, either for wages or as family helpers. Of the unemployed, 6,801,000 were classified as unemployable by reason of exemption or disability, leaving only 1,398,000 persons unemployed, though capable of gainful activity.

Education. The U.S. Zone and the U.S. Sector of Berlin had the following level of school enrollment on July 1, 1946:

Type of School	No of Pupils	Teacher Employed
Elementary Schools	1,952,839	24,732
Secondary Schools	187,853	6,219
Vocational Schools	201,477	2,713
Special Schools	4,369	183

Finance. The net governmental deficit of the U S Zone amounted to RM 585,000,000 for the fiscal year 1945. Tax collections during the fiscal year averaged only 40% of similar collections during fiscal year 1944, but the Allied Control Council has drastically increased the rate schedules of many important taxes, and this will produce additional revenue during the fiscal year 1946. It is estimated that, excluding income taxes, the average effective tax rate in Germany is now about three times the average rate for the period 1933–1937.

Bank deposits in the U.S Zone amounted to RM 64,500,000,000 on March 31, 1946. Of this total, RM 17,000,000,000 (26%) had been deposited since the beginning of the occupation. Total bank credits granted from September 1, 1945 through March 31, 1946 were RM 2,466,300,000, of which RM 1,767,800,000 (72%) had been repaid.

JOACHIM JOESTEN.

GOLD. Mining of gold in the United States resuscitated slightly in 1946, but lack of labor and equipment and rising production costs prevented a full revival from the dormancy enforced by government order during the war.

Although the restrictive order had been revoked by the War Production Board, effective July 1, 1945, little recovery was shown during the balance of that year and the early months of 1946. Strikes in the copper mines, which contribute important portions of the nation's gold output as a by-product, held down total gold production until settlement late in June. With the coming of the summer season, however, many placer mining operations, particularly in Colorado and Alaska, resumed for the first time since the war. These, together with reopened underground mines, pushed the year's total production gradually upward reaching a total of about 1,500,000 fine oz. for the United States and Alaska (1945: 954,576 fine oz.). The 1946 total

was the lowest during peacetime on record, and compares to 4,750,000 fine oz. produced in 1940.

California and South Dakota, with approximately the same total production, led the gold-producing states, with Alaska producing at a comparable rate during the summer. Utah, where most gold is mined in conjunction with base metals, Nevada, Arizona, and Colorado produced substantial amounts. South Africa again was the world's leading producer, followed by Canada.

The United States Treasury price for gold remained at $35 per fine oz., but Canadian action in raising its currency to parity with the United States dollar, in effect, reduced the price of gold in Canada from $38.89 to $35.00 The action was regarded as a severe blow to Canadian gold miners.

CHARLES T. POST.

GOLD COAST. A colony in British West Africa, seat of the West African Council. Attached to the Gold Coast for administrative purposes are the following: Ashanti and the Northern Territories (inland) and Togoland (British mandate). Area, including the territories administered, 91,843 square miles. Population (1942 estimate), 3,962,692 Capital, Accra (72,977).

The colony is administered by a governor, with the assistance of an executive council and a legislative council. Constitutional reforms were introduced in the Gold Coast in 1945–46, and as a result the new legislative council of 31 members contained 21 African members, 18 of whom had been elected. The Governor, Sir Alan Burns, in opening the reformed Legislative Council on July 23, 1946, read a message from the King, which stated: "It is a source of gratification to me that it has been found possible to entrust the people themselves, through their elected representatives, with a wider measure of control of their own affairs." Mr. George Hall, then Secretary of State for the Colonies, sent a message describing the new Legislative Council arrangements as "a landmark in British tropical Africa."

As an increasing degree of responsibility for government was given to Africans, activity on their part grew proportionately. C. W. Tachie-Menson, an African who had been a member of both the Executive and Legislative Councils in the Gold Coast, was one of the members appointed to the West African Airways Corporation for an initial period of 12 months. The Gold Coast was particularly vocal in its support of the majority report of the Commission on Higher Education in West Africa, favoring a university college in each colony rather than a unitary West African university in Nigeria. Opposition was continued in the Gold Coast to the British control plan for cocoa prices in West Africa, first proposed by the Churchill Government and announced in a White Paper by the Attlee Government on November 20.

The chief agricultural products are cacao (for which the Gold Coast is the world's most important area), kola nuts, palm kernels, copra, rubber, maize, and yams. Timber is produced and gold, manganese, and diamonds mined in considerable amounts. In recent years exports have exceeded imports, with gold and cocoa standing first.

ALZADA COMSTOCK.

GOLF. With the return of many stars from the wars and the revival of most of the major tourneys, golf regained its high place on the world's sports calendar in 1946. Byron Nelson, ex-caddy who held a monopoly on the big links prizes the previous two seasons was forced by ill health to limit himself to comparatively few tournaments with the result that a wide-open battle for his many titles was waged all year.

Ben Hogan, 135-pounder playing out of Hershey, Pennsylvania, emerged from the club swinging as the successor to his fellow Texan Nelson, leading the money winners with $42,556. Herman Barron of White Plains, N.Y., followed with $23,003 and Nelson was third with $22,270. Little Ben won most of the tourneys sponsored by the Professional Golfers Association, thirteen in all, and climaxed a great campaign in the national P.G.A. test at Portland, Oregon, when he trounced Ed Oliver, 6 and 4. Listed among his other triumphs were victories in such open tourneys as the St. Petersburg, Western, Dallas, Fort Worth, Texas, Phoenix, Canadian, Golden State, and Goodall competitions.

One of the few rich plums that eluded the Mighty Mite of the fairways was the United States open, revived after a lapse of five years at the Canterbury Club in Cleveland. Lloyd Mangrum captured that event which proved one of 1946's real thrillers. Mangrum defeated Nelson and Vic Ghezzi in a play-off after each had scored 284 for the regulation 72 holes. Nelson, dogged by hard luck, missed an opportunity to win the title outright as he had the year before when a caddy accidentally kicked his ball on the thirteenth hole of the third round, costing Byron a penalty stroke.

Nelson retained a few of his crowns, including that for the Victory open at Calumet where he posted a sparkling 279 to defeat Harold McSpaden for the second straight year, Jug finishing two strokes behind the winner. However, Nelson's most pleasing triumph probably was that registered in a challenge match with Dick Burton, holdover British open champion, at the Charles River Club near Boston. The meeting, which came about when a number of persons made disparaging remarks about the sensational scoring of American pros, did not last too long, the smooth-swinging Nelson closing out the invader by 7 and 6.

Sam Snead of White Sulphur Springs, West Virginia, grabbed a share of the golfing spotlight when he went abroad to win Britain's first postwar open and return the famous trophy to America for the first time since 1933, when Denny Shute triumphed. Slammin' Sam carded a 290, two under par for St. Andrews, while Johnny Bulla, another American, tied Bobby Locke at 294 for runner-up honors. Listed among Snead's other feats were victories in open events at Miami, Jacksonville, Greensboro, and the George S. May test at Chicago. Locke kept his South Africa open championship and Henry Cotton of England triumphed in the French open.

Barron captured the All-American open at Tam o'Shanter in Chicago, winning $10,500 with a score of 280 while George Hamer of Columbus, Georgia, paced the amateurs and Mrs. Mildred (Babe) Didrikson Zaharias of Denver led the women.

The United States amateur tournament, last held in 1941, was revived and Ted Bishop, New England champion, carried off the laurels. Bishop conquered Smiley Quick, national public links king from California, on the thirty-seventh hole of a hard-fought final on the picturesque Baltusrol course. The British amateur was annexed by James Bruen from Cork who became the first Irish golfer to win that crown when he defeated Bob Sweeny, American-born star, 4 and 3.

Mrs. Zaharias, voted woman athlete of the year in the Associated Press poll, for the second straight time, was outstanding among the feminine club

swingers, numbering among her many conquests a triumph in the national amateur in addition to that scored in the All-American. Miss Patty Berg of Minneapolis, former United States queen, took national open laurels. Miss Louise Suggs of Lithia Springs, Georgia, also ranked high, scoring impressively in the Western open and Western amateur tournaments.

Stanford captured national intercollegiate team honors with Hamer winning the individual title for Georgia. Miss Phyllis Otto of Northwestern took the women's intercollegiate laurels.

THOMAS V. HANEY.

GRAZING SERVICE. A branch of the U.S. Department of the Interior, which administered grazing on 142,000,000 acres of Federal Range in order to protect the lands, permit the highest use of forage and other resources, and at the same time retard soil erosion and facilitate flood control. Absorbed into the Bureau of Land Management, July 16, 1946.

GREAT BRITAIN. Official designation for the political union embracing England, Scotland, and Wales. Great Britain, together with Northern Ireland, the Isle of Man, and the Channel Islands, forms the United Kingdom of Great Britain and Northern Ireland. For statistical purposes the Isle of Man and the Channel Islands are included under Great Britain. Capital, London (estimated population 8,700,000). See BRITISH EMPIRE; IRELAND, NORTHERN.

Population Trends. The population of Great Britain increased from 44,937,444 in 1931 to 46,607,000 (estimated) in 1941. For England and Wales the birth rate in 1945 was 16.1 per 1,000 and the death rate 11.4 per 1,000. Infant mortality for the third quarter of 1946 represented a rate of 35 per 1,000. This was the lowest rate ever recorded for England and Wales, and was 7 below the average rate for the third quarter of the 10 preceding years. Deaths in the third quarter of 1946 represented a rate of 9.3, as compared with 9.8 per 1,000 for the third quarter of the preceding five years.

The area of Great Britain, the census population of Apr. 27, 1931, and the estimated population in 1941, are shown in the accompanying table.

GREAT BRITAIN: AREA AND POPULATION

Divisions	Area in Sq. Miles	Population[a] 1931	1941
England[b]	50,874	37,794,003	41,460,000
Wales	7,466	2,158,374	
Scotland	30,405	4,842,980	5,007,000
Isle of Man	221	49,308	140,000
Channel Islands	75	93,205	
Total	89,041	44,937,444	46,607,000

[a] Exclusive of army, navy, and merchant seamen abroad.
[b] Including Monmouthshire.

Government. The United Kingdom of Great Britain and Northern Ireland is a limited monarchy with an unwritten constitution, under which final legislative, judicial, and administrative authority is vested in a Parliament of two houses, acting through a cabinet drawn from its members. Parliament is the supreme legislative authority in the territories of the British Empire, excluding the self-governing Dominions.

The upper house, the House of Lords, has more than 800 members, including minors not seated. Since 1911 the power of the House of Lords in matters of legislation has been severely limited. The lower house, the House of Commons, consists of 640 members elected by universal suffrage on the basis of one member for every 70,000 of the population.

In July, 1945, as the result of the first general election held since 1935, the wartime Coalition (largely Conservative) Government was replaced by a Labor Government with an absolute majority in the House of Commons. The standing of the Government parties in the House after this election was as follows: Labor, 393; Liberal, 10; Independent Labor, 3; Communist, 2; Irish Nationalists, 2; Common Wealth, 1; Independent, 3. The Opposition consisted of 198 Conservatives, 1 National, 13 Liberal Nationals and 1 Liberal.

Sovereign, George VI, who succeeded to the throne upon the abdication of Edward VIII on December 10, 1936, and was proclaimed King on December 12, 1936; Prime Minister, Clement R. Attlee; Secretary of State for Foreign Affairs, Ernest Bevin; leader of His Majesty's Opposition, Winston Churchill.

Events, 1946. The first full year of peace was a turbulent one for Britain, with domestic effort concentrated on the Labor Government's nationalization program and the drive for exports, while at the same time foreign policy was required to span such diverse necessities as the maintenance of discipline in the troubled mandate of Palestine, the provision of self-government for India, Burma, and other developing areas, and participation in international conferences at the highest levels.

Additional strain for the overworked Ministers was furnished by growing pressure from the left wing of the Labor Party to increase the degree of cooperation with Soviet Russia at the expense of working relations with the United States. The Labor Party's solid majority demonstrated its parliamentary value in all matters concerned with economic and social policy at home, while one local election after another proved that the sentiment of the voters had not altered since the party was given power in the national election. In matters of foreign policy, however, a permanent line of cleavage within the party plagued the government increasingly.

The Nationalization of Coal. The Labor Government elected in the summer of 1945 was pledged through the overwhelming popular acceptance of its program, "Let Us Face the Future," to the nationalization of a section of British enterprise. No part of this complicated work could be completed in the few remaining months of 1945, but the bill for the nationalization of the Bank of England laid before Parliament in October, 1945, became law on February 14, 1946, and a bill for the nationalization of the coal mines was published on December 20, 1945 (see YEAR BOOK for 1945, pp. 249).

For the time being, at least, little change was made in the management or operations of the Bank of England, whose reputation for skill was worldwide; but the country's backward coal mining industry presented a different problem. Years of disappointingly low production of coal and decades of unrest among the miners, accompanied always by allegations of inefficiency by workers against employers and by employers against workers, had produced a campaign for nationalization a quarter of a century before.

The coal industry nationalization bill became law on July 12, 1946. The National Coal Board, a body of nine men to whom was given the task of getting the industry back on its feet, began its work three days later. It was the duty of the board to make arrangements for the transfer of the business to the Ministry of Fuel and Power on January

1, 1947. The board initiated the establishment of eight divisional coal boards which were to be responsible for the day-to-day operations of mines in their areas, and of two consumers' coal councils, one industrial and the other domestic, which were to advise the Minister of Fuel and Power.

On August 1 the Arbitration Tribunal, a board set up to determine how the former owners should be paid, fixed the total sum at $667,000,000. The existing operating companies were to be paid in Government stock, except for a limited number of cash payments under special conditions. Although the stock was to be inalienable at first, in order to avoid a harmful effect on the market, the plan was to provide a way for gradual liquidation by the recipients if the need arose.

The imminence of nationalization apparently had a stimulating effect upon coal production, for output in the last week of November reached the highest figure since June, 1945, and production per man was on the increase. A fuel shortage was created, however, because of the gap between output and the country's rising fuel demands. In late December some factories were obliged to close because of lack of fuel, and a five percent cut in the industrial consumption of coal was announced as effective December 30. The National Coal Board announced on December 19 that a five-day week would be introduced in the industry on May 1, 1947.

Civil Aviation. All civil air services except charter flying were brought under public ownership by a bill which became law at the beginning of August. This measure aroused comparatively little opposition, for public control of overseas services was already exercised by the British Overseas Airways Corporation (BOAC). The plan involved setting up three state-owned corporations: British Overseas Airways, British European Airways and British South American Airways, each of which was to operate as if it were a private corporation. The amount of compensation for the airports acquired under the act was not made known immediately, but a reliable estimate put the figure near $80,000,000.

Telecommunications. The recommendations of the Commonwealth Telecommunications conference, held in the summer of 1945, that the overseas telecommunications services of all the Commonwealth governments should be brought under national ownership and that a new board with very wide functions, representing all Commonwealth governments, should be set up, were accepted by the British Labor Government. Accordingly a bill was introduced to transfer to the British Government the British overseas communications monopoly, Cable and Wireless Ltd., which had been formed in 1928 by merging nine existing telegraph companies.

The bill passed its second reading in the House of Commons in May without a record vote and was approved by the House of Lords in October. The former owners were to be paid in Government stock, but, unlike the stock paid the coal mine owners, it was to be negotiable. The day set for final transfer was Januray 1, 1947.

Further Nationalization Plans. These four fields of enterprise—the Bank of England, coal mining, civil aviation, and telecommunications—were the only ones for whom the transfer to state ownership was accomplished in 1946. It was not, however, the year's full record of activity, for plans were formulated for the nationalization of iron and steel plants and the transport services; cotton buying was centralized in Government hands, a subsidy-price maintenance plan for agriculture was announced and arrangements were made to continue the control of foreign exchange.

Iron and Steel Problems. A difficult technical and political situation was presented by the iron and steel industry, sections of which the Labor Government early scheduled for nationalization. The industry offered a sharp contrast with coal mining. Production was satisfactory; its need of modernization, though apparent, was not critical; and it had an excellent record in labor relations. Its industrial structure was far more complicated than that of coal mining. In climax, when the Government's plans were announced they brought the further complication of proposed nationalization of only part of the enterprises.

Iron and steel producers had for some time been organized in an established federation. This group, aware of its own need of improvement and of the Government's plans, itself offered the Government, in December, 1945, a modernization plan to cost approximately $675,000,000. This plan was published as a Government *White Paper* in May, 1946. The Government, however, proceeded to set in motion nationalization plans which it had announced in April. On May 29 the House of Commons concluded a two-day debate on the question and approved the Government's plan by a vote of 338 to 184. No date for nationalization was set, but the Government proposed to set up a control board to see that the industry was carried on and that modernization schemes proceeded swiftly and smoothly.

There was some difficulty in persuading steel manufacturers to serve on the board, for they said that they could not conscientiously work towards nationalization. After assurances by the Minister of Supply, John Wilmot, that their work would not be directly concerned with nationalization, the Government was able to announce the composition of a tripartite board headed by Sir Archibald Forbes, formerly a manufacturer and subsequently a Government official. At the end of the year plans for the iron and steel industry were still far from complete.

Nationalization of Transport. The Government's bill to bring railways, road transport, canals, docks and harbors under national control was presented to the House of Commons on November 28. This was by far the most ambitious of the nationalization plans, involving as it did some 1,500,000 employees and businesses worth at current prices about $24,000,000,000. Justification of the plan was asked for repeatedly, for the four great railway systems involved, the Great Western, the London, Midland and Scottish, the London and North Eastern and the Southern, had in some quarters an enviable reputation for efficiency.

The plan was to set up a British Transport Commission of five members and to transfer the system to the new authority in January 1, 1948. The contemplated financial arrangements were promptly criticized, for the stockholders were to have no right of appeal other than to Parliament, and the basis of compensation, which was not agreed upon in advance, was regarded by financial interests as inequitable.

The four main line railway companies issued a statement on December 11, criticizing the terms of the bill. The British Railway Stockholders' Union opened a campaign against nationalization at a meeting on December 13. On December 15 the Central Committee of Transport Users, representing the Association of British Chambers of Commerce, the Federation of British Industries, the

National Union of Manufacturers, the Traders' Coordinating Committee on Transport and the Traders' Road Transport Association, urged the Government to arrange for public inquiry "before the country was committed irrevocably."

The House of Commons debate on the second reading of the Transport Bill occupied three days, December 16–18. Minister of Transport Barnes, making the second reading, described the bill as the largest and most extensive socialization measure ever presented to a democratic parliament. He rejected the demands for an inquiry but said that he would welcome constructive criticism or advice. When the opposition motion for the rejection of the bill was voted down by 362 to 204, critics took satisfaction in the fact that it was the first time in that Parliament that the opposition had recorded a vote of more than 200.

Powers over Agriculture. The text of an agriculture bill conferring wide powers on the Government over farm land and farmers, and guaranteeing stable prices in return, was given to the House of Commons on December 19 by Minister of Agriculture Tom Williams. An explanatory memorandum, issued as a *White Paper*, stated that the Government's policy was to promote a stable and efficient agriculture capable of producing such part of the nation's food as in the national interest it was desirable to produce in the United Kingdom. It was pointed out that home agricultural production rose from £290,000,000 to nearly £580,000,000 during the war.

The bill provided that guaranteed prices and assured markets would apply to fat cattle, fat sheep, fat pigs, cows, milk, wheat, barley, oats, rye, potatoes and sugar beets. A controversial feature of the bill was the Government's reservation of the right to dispossess farmers by the compulsory purchase of their land if they failed to meet their responsibilities and to comply with the advice given them by Government agencies.

The bill was the outcome of practices and consultations extending back through the war years. In principle, the measure was to a considerable extent agreed upon before it started on its parliamentary course, and its passage appeared to be assured.

These two plans for further public activity, transport nationalization and farming control, were mentioned in the King's speech at the opening of Parliament on November 12. The coming nationalization of electricity, so that all fuel and power could be coordinated, was also mentioned in the speech, as well as the plan for continuing wartime control over foreign exchange which appeared as a bill in Parliament soon after the opening. Government buying of cotton, eliminating Liverpool as the world's raw cotton market, received Parliamentary approval in December.

Non-Socialized Industry. The sector of British industry not scheduled for nationalization was given advice and the promise of assistance, beginning with industries whose improvement was essential to national prosperity, through the device of the "working party." This program was outlined by Sir Stafford Cripps, President of the Board of Trade, in statements on October 15, 1945, and March 11, 1946, when he announced the establishment of tripartite working parties (i.e., committees composed of representatives of employers, trade unions and independent members selected by the Government) for 15 industries.

The Working Party Report for the cotton manufacturing industry, a business always of prime concern to the British people, was issued in May, 1946. The main recommendations of the report were that a comprehensive survey should be undertaken immediately of existing industrial plant and its suitability for modernization; mills should work in groups, immobilizing a portion of existing spindles and setting up a fund, drawn from a levy, to aid re-equipment; marketing and research should be pushed and loan facilities for modernization and consolidation should be provided.

The Government policy with respect to cotton, announced on December 3, was linked to the recommendations of the working party. The Government offered to make a free contribution to the cotton spinning industry covering one-fourth of the cost of all essential machinery re-equipment, on the condition that the reorganization take place quickly, that the mills group themselves and that the two-shift system be introduced when the plants were modernized. This announcement gave a clear indication that working policy reports for other industries would be followed by positive action on the part of the Government.

Labor and Social Services. The Labor Government considered that in the field of the social services the recommendations of the Beveridge Report, published and endorsed by the Coalition Government in 1943, had been carried into law at all its main points, and in some respects even was exceeded by legislation already on the statute books at the end of 1946.

Under the National Insurance Act, finally passed in August, 1946, every one in Britain was given social security "from the cradle to the grave," in the words of the Beveridge Report. This was done by means of compulsory insurance with payments into funds to which employers, employees, and the State contribute. The earlier elaborate machinery was altered so that the ordinary contributor would now pay only a single weekly contribution.

Allowances for children starting with the second child, as provided under a bill passed in May, 1945, were begun in the summer of 1946. In this instance the cost is met by the Treasury. Under the National Health Service Act which became law on November 6, 1946, complete medical, dental, specialist, and hospital services became available without charge to everyone, although the choice of doctors by patients and the choice of activity by doctors was retained. Some members of the British Medical Association continued to oppose the measure after its passage, and to threaten to withhold their cooperation.

The Export Problem. The kernel of British Labor Government policy has been and remains full employment. Several of its domestic state control measures which are not immediately explicable on grounds of easy provability of the greater efficiency of Government operation, are more easily understood against this background. Measures taken in 1946 to promote exports, however, were directed not only towards maintaining employment but also towards maintaining the standard of consumption of the nation and its people, and therefore no important differences of political opinion or social policy were in question.

Because of her wartime sacrifices in investments abroad, shipping services available to other countries, and altered home production, Britain's visible and invisible exports in 1946 were not sufficient to enable her to pay her way, even though imports were forcibly kept below the prewar level. By the third quarter of 1946 visible exports were only 104 percent of prewar volume, in spite of the announced necessity of raising them to 175 percent of the earlier amount. Imports were held down in

the same period to 70 percent of the 1938 volume, leaving Britain still the world's greatest importer and at the same time an example of a reduced standard of living.

Rationing and scarcities remained in force while productive energy was forced into goods for export. Most of these goods were not made available for purchase at home. An exhibition of export goods in the autumn, called "Britain Can Make It!" produced the popular slogan "Britain can make it, but Britain can't get it," as well as large numbers of the foreign orders hoped for.

The American and Canadian loans, which were intended to tide over this reconversion period in Britain, were used sparingly for a number of reasons. Rising prices in the United States were a deterrent to the full utilization of the $3,750,000,000 granted, although in the first seven months of 1946 the largest supplier of the United Kingdom was the United States. Shortages of materials and lack of shipping affected purchases from Canada's $1,250,000,000 loan, but Canada held second place as a source of Britain's carefully restricted imports.

At the end of the year the figures showed that British exports in 1946 were nearly double in money value those of 1938, although the volume was about the same. Several disturbing trends were apparent. Shortages of coal, steel and other materials were becoming more serious. The increase seemed to have slowed after the middle of the year. Future foreign purchasing power was problematical because of the fact that although one-half of Britain's imports were coming from the hard-currency dollar areas of North and South America, only one-seventh of her exports were going there.

Commenting on this problem, *The Economist* (London), remarked as follows in its summary, "Britain's Balance of Payments," on December 21, 1946.

> This visible deficit is not a full measure of the extent of the dollar outgoings, because a substantial part of the government expenditure, especially in Germany, is incurred in dollars, and because Britain's dollar reserve has to meet the whole dollar needs of the sterling area Yet on the basis of current dollar prices, the purchasing power of the American loan, as Mr Dalton [Chancellor of the Exchequer] estimated this week, has been reduced by, say, 23 percent
> . . . It would be folly to count on any perceptible relief from such progress during the critical two years or so for which the dollar credits will hold out The Government, for the present at least, has evidently decided not to attempt any specific directional control of exports, although it will license raw material supplies to exert pressure in the appropriate directions . . . But if direct action must be ruled out, the Government dare not sit back and simply watch Britain's external finances drift steadily towards the rapids of 1949 and 1950 The only possible course seems to be a sustained campaign of exhortation and education, combined with vigorous official exploration of export opportunities in all cases in which private market research looks inadequate.

Foreign Affairs. Foreign Secretary Ernest Bevin was several times called upon to explain and defend British foreign policy in the House of Commons. On February 21, after a debate in which Anthony Eden, Foreign Secretary under the wartime Coalition Government, expressed anxiety over the international situation in general and Anglo-Soviet relations in particular, Bevin did much to allay any uneasiness generally felt. He revealed that he had offered to advise the British Government to extend the duration of the Anglo-Soviet treaty from 20 to 50 years and to amend the treaty in any way that would foster confidence. He also announced that he had invited the prime ministers of the Dominions to meet in London before the Paris Peace Conference.

Opening a two-day debate on foreign affairs on June 4, Bevin spoke of the coming Paris Peace Conference and his disappointment in Russia's attitude on some of the problems involved. On July 26 the Foreign Secretary was called upon to defend in the House the Foreign Ministers' decision that Italy should be allowed to retain South Tirol.

In another two-day debate in the House of Commons on October 22–23, Bevin made a restrained and tactful reply to criticisms which were in effect aimed at his position in the course of the Paris Peace Conference. "We are not ganging up with anybody, either with one side or the other," he said. He outlined the plan for Germany that he would take to the Council of Foreign Ministers' meeting in New York, one that closely resembled that of Secretary of State Byrnes, and observed that "we must either have the Potsdam Agreement observed as a whole . . . or else have a new agreement."

Labor Revolt in Commons. The severest test of support of Bevin's foreign policy came soon after Parliament opened on November 12, while the Foreign Secretary was in New York for the meeting of the Council of Foreign Ministers. The affair began when 59 members of Parliament signed an amendment to the opening speech of King George VI, urging that the Government review and recast its conduct of international affairs, in order to collaborate with nations using full Socialist planning and to "provide a democratic and constructive Socialist alternative to an otherwise inevitable conflict between American capitalism and Soviet communism in which all hope of world government would be destroyed."

After a lively debate, including attacks on the Foreign Secretary which drew forth expressions of resentment from Prime Minister Attlee, the foreign policy amendment offered by the rebel labor members was lost on November 18 by a vote of 353 to 0. The gravity of the revolt was shown by the number of abstentions. The number of Labor members unaccounted for was 122, and it was known that 60 or 70 of them were in the chamber and deliberately abstained from voting.

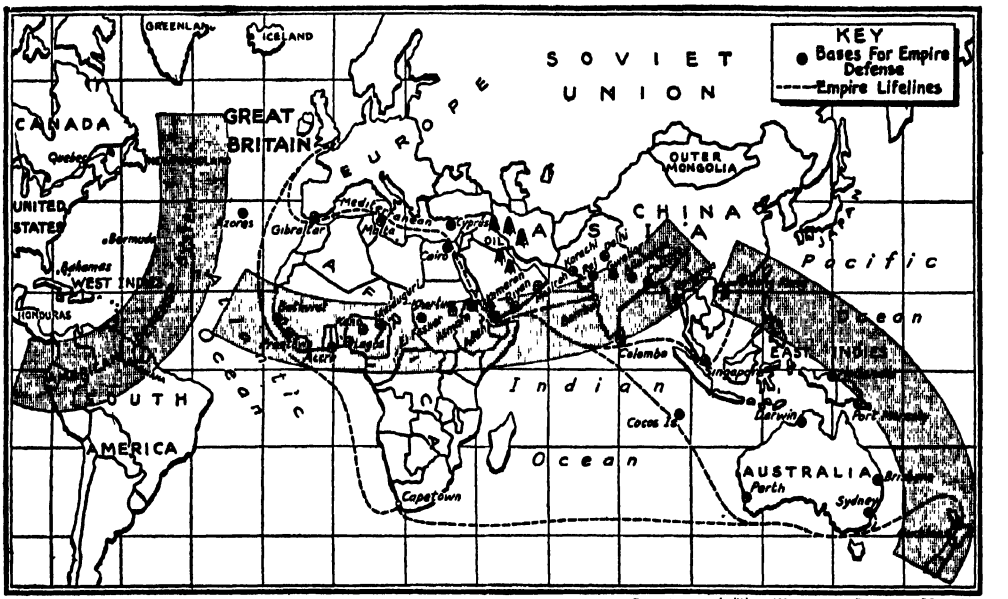
Council of Foreign Ministers. Bevin attended the meetings of the Council of Foreign Ministers held in the course of the year. He was not able to be at the opening of the Paris Peace Conference, because of physicians' orders to rest after the June-July meeting of the Foreign Ministers, but he took an active part after his arrival. The frequent clashes between Bevin and the Soviet representatives at Paris was one of the causes of the Labor revolt in the House of Commons in November, but in other quarters there were varying explanations of the origins of the provocation evident at the Peace Conference.

When the Foreign Secretary came to New York in early November for the meeting of the Council of Foreign Ministers held while the General Assembly of the United Nations was meeting in Flushing, he was given a civic reception. Later he was entertained by leaders of the American Federation of Labor. On December 8 he had an interview with President Truman in Washington. When the Council ended its meetings on December 12, with plans to reconvene in Moscow on March 10, it was evident that relations among the members of the Big Four were cordial.

Difficulties Abroad. The year was full of problems in the foreign field, aside from those which directly occupied the Council of Foreign Ministers and the British delegation to the General Assembly of the United Nations. The presence of British troops

in Greece and other British activity in relation to that country remained a bone of international contention. Britain was unable to come to a definite agreement on the question of the Anglo-Egyptian Sudan condominium, but British troops were withdrawn from Egypt, where they had been quartered since 1882.

British mandated territories in Africa (the Cameroons, Tanganyika and Togoland), were announced as scheduled for United Nations trusteeship by Foreign Secretary Bevin before the General Assembly of the United Nations in London on January 17. At the same time he said that the mandated country of Trans-Jordan would be made a



Courtesy of The Christian Science Monitor

SHADED ARCS SHOW APPROXIMATE LINE OF GREAT BRITAIN'S DEFENSES

On April 4 the British Government announced that because of the unfriendly attitude of the Albanian Government the British minister designate would not be sent to Tirana. Relations between the two countries deteriorated in the remainder of the year. On December 9 it was announced that the British Government, after a thorough examination of the evidence that had accumulated after two British destroyers were mined in the Corfu Channel on October 22, had sent a note to the Albanian Government by way of Belgrade.

Empire Developments. Within the Empire also there were areas of turbulence, although distinct progress towards self-government could be seen in certain territories. India was too much torn by communal differences to make rapid progress towards the self-government urged upon it by the British Government. In Burma and Malaya the situation was internally different, but sufficiently disturbed to cause delay and alteration of plans. (See articles on INDIA, BURMA, BRITISH MALAYA.) In the Palestine mandate the continuance of violence caused increasing apprehension in the world at large. (See article on PALESTINE.)

Colonies and Mandates. Grants from the Colonial Development and Welfare Fund continued to be made, and at the beginning of October the appointment of the members of the new Colonial Development Council was announced. The Government policy in general was outlined in the House of Commons on July 9, when George Hall, Colonial Secretary, defined it as the development of the colonies and all their resources to enable their peoples to improve their economic and social conditions and, as soon as might be practicable, to attain responsible self-government.

sovereign, independent state, but that the British Government's plans for mandated Palestine must await the report of the Anglo-American Commission of Inquiry.

A White Paper on the British proposal to place the Cameroons, Tanganyika and Togoland under the international trusteeship system established by the United Nations Charter was published in London on June 24. After discussion with the United States, which objected to clauses allowing Britain to establish fiscal or other monopolies in trustee territories, and after consideration by the General Assembly of the United Nations in New York, the trusteeship arrangements were approved by a vote of 41 to 5 on December 13.

Commonwealth Consultations. The Foreign Ministers of the Dominions met in London in April, with many items on the agenda connected with joint defense. This meeting was followed by a conference of Dominion Prime Ministers, which was concluded in May. The official announcement from 10 Downing Street on the work of the Prime Minsters' conference, issued on May 23, was general in character, but it indicated that the Paris peace treaties, liaison on defense matters and economic and welfare cooperation in the South Pacific and Southeast Asia were included in the more important subjects discussed.

Less formal discussions were held in London in October, as the delegates of 18 nations were gathering for the preparatory conference on world trade and employment. British trade and financial experts and delegations representing the Dominion Governments discovered a striking unanimity of determination that the future economic pattern of the world should not be a repetition of what it was

after 1914–1918, according to Sir Stafford Cripps, President of the British Board of Trade, who summarized the talks.

British-American Relations. The most important agreement reached by the British and American Governments in 1946 was that for economic fusion of the British and American zones of occupation in Germany, signed on December 2 by Foreign Secretary Bevin and Secretary of State Byrnes. The decision was made under that portion of the Potsdam Agreement that stated that "during the period of occupation Germany shall be treated as a single economic unit." Russia and France were included in the original invitation issued by Secretary Byrnes but neither responded positively.

A joint Anglo-American statement issued on January 14 gave policy recommendations affecting the economic development of the Caribbean, including plans for expanding food and livestock production in order to make the islands more nearly self-supporting. The policy statement reviewed the recommendations of the West Indian conference held in Barbados in 1945 under the auspices of the Anglo-American Caribbean Commission, and anticipated a conference held in St. Thomas in the Virgin Islands in February.

At the Bermuda Civil Aviation conference in Hamilton in January and February agreement was reached on Anglo-American commercial use of nine military air fields built during the war by the United States in British possessions in the North Atlantic and Caribbean. After four weeks of negotiation an Anglo-American air agreement was signed on February 11.

Cabinet Changes. Prime Minister Attlee made the first change in his ten-months old cabinet when on May 27 he appointed John Strachey as Minister of Food to succeed Sir Ben Smith. Later in the year, with the issuance of the October 4 White Paper proposing the formation of a Ministry of Defence, A. V. Alexander was selected as Minister of Defence and new heads were appointed for all the service departments. The service ministers were no longer to be cabinet members. New appointments were announced as follows on October 4: Minister without Portfolio, A. V. Alexander; Secretary of State for the Colonies, A. Creech Jones; First Lord of the Admiralty, George H. Hall; Secretary of State for Air, Philip Noel-Baker; Secretary of State for War, F. J. Bellenger; Minister of Civil Aviation, Lord Nathan; Minister of State, Hector McNeil.

Demobilization and Austerity. Demobilization was well advanced in 1946, although service in the occupied countries kept the numbers of men under arms from becoming small. Peace time conscription was approved by Parliament with some Labor members abstaining. It was not possible to release any items from the rationing scheme, and bread was added for the first time. Nevertheless at the end of the year some improvement was observable in the commodities available. Coal and raw materials were short, however, the former to the point of hardship for consumers as well as for industry.

Religion and Education. The Church of England, with a Protestant Episcopal form of Government, and the Church of Scotland (Presbyterian), are the established churches of the respective countries. In Wales the Church was disestablished in 1920. The leading denominations in England and Wales according to membership are the Anglican, Roman Catholic, Methodist, Congregationalist, Baptist, and Calvinist Methodist.

Elementary education is provided free throughout Great Britain, and under the heading of "elementary education" are included large numbers of senior and central schools providing education of a secondary grade. The Education Act of 1944, not yet fully in effect, classified public education into primary, secondary and further education. Free full-time schooling is to be carried through the secondary stage, which begins at about the age of 11. The Education Act of 1944 raised the school-leaving age to 15 immediately, and to 16 as soon as enough schools were built. Children leaving school at 16 are to attend special County Colleges several days a week in their employers' time. In Scotland all forms of post-primary education up to 18 are provided free, except in a few schools. The "public" (endowed) schools of England are outside of the state system.

There are 11 universities in England, 4 in Scotland and 1 in Wales. The number of students enroled in 1945–46 was 50,178. In normal times about two-fifths of the students are assisted by the state.

Production. Although only a small fraction of its population live on the land, Britain has rich agricultural areas capable of producing a variety of crops. The chief agricultural products are wheat, barley, oats, beans, peas, potatoes, turnips, swedes, mangold and hay. Beef, mutton, pork and dairy products are also important. In the course of the war, agricultural production was increased until it supplied two-thirds to three-fourths of home needs as compared with one-third before the war.

Great Britain's reliance is mainly upon manufacturing, although before it became a depressed business coal mining also furnished a profitable article of export. Provisional figures for the coal industry for 1946 showed coal output of 189,300,000 tons, as compared with 182,772,700 tons in 1945. In peace time the chief industries were textiles, iron and steel, engineering and shipbuilding. Steel production in November, 1946, was at a record peak of a rate of 13,700,000 tons a year, compared with 10,400,000 in 1938. The working population at the end of September, 1946, was 20,402,000, a figure larger than that of mid-1939 by 652,000. At that date the flow of women out of industry appeared to have been checked.

Trade. The chief imports of the United Kingdom are food, drink and tobacco and raw materials. The leading exports in 1946 were vehicles, machinery, iron and steel manufactures, chemicals and cotton and wool products. Commodity exports were only about three-fourths as large as commodity imports. Taking invisible items into account, the trade deficit in 1946 was estimated at £450,000,000 or more.

ALZADA COMSTOCK.

GREECE. A Balkan state, occupied by Axis troops from April-May, 1941, until October, 1944. Capital, Athens. Greece has an area of 50,147 square miles (mainland, 41,328; island, 8,819). The population was estimated at 7,200,000 in 1941 (7,336,000 at 1940 census). Estimated populations of the chief cities in 1939 were: Athens, 392,781; Piraeus, 198,771; Salonika (Thessalonike), 236,524; Patras, 61,278; Kavalla, 49,980; Canea, 26,608; Corfu (Kerkyra), 32,221.

Religion and Education. School attendance in 1937–38 was: Elementary, 985,018; secondary, 92,687; university, 7,998. The 1928 census returns showed 5,961,529 members of the Greek Orthodox Church, 126,017 Moslems, 72,791 Jews, 35,182 Roman Catholics, and 9,003 Protestants.

Government. Premier John Metaxas administered Greece as a dictatorship from Aug. 4, 1936, until his death on Jan. 29, 1941. The government re-

mained a monarchy in form under King George II, who had been restored to the throne Nov. 25, 1935, in accordance with a plebiscite, to rule under the Constitution of 1911. King George signed the 1936 degrees which suspended constitutional guarantees, dissolved Parliament, abolished political parties, and imposed strict control over the press and other means of communication. Thereafter, all legislation was enacted by royal decree.

According to a resolution passed by the Greek National Assembly Oct. 10, 1935, the 1911 Constitution was to remain in force until the enactment of a new Constitutional Charter. King George on Oct. 22, 1941, issued a royal decree regulating the functions of state authorities in cases in which the 1911 Constitution could not be fully applied owing to the absence of the Government from Greece.

Italian forces invaded Greece Oct. 28, 1940, and were driven out by the Greek Army, which advanced and occupied one-third of Albania by Apr. 6, 1941, when the German invasion of Greece began. The Greek armed forces were defeated and a British expeditionary force was expelled. King George, with members of the Government, left Athens April 22 and, after a temporary stay in Cairo, Egypt, was transferred to London, effective Sept. 22, 1941.

Axis forces were in control of Greece until 1944 when political and military events forced German and Bulgarian armed forces to leave and the whole country was cleared by Oct. 15, 1944. The Greek Prime Minister, M. Papandreou, arrived in Athens on Oct. 18, 1944. King George, on Dec. 30, 1944, set up a Regency to last during the period of emergency and until the will of the people should be known as to whether they desired a monarchy or a republic. Regent in 1945: Archbishop Damaskinos (sworn in, Dec. 31, 1944). Prime Minister in 1946: Constantine Tsaldaris (selected April 18, 1946).

Events. Greece entered 1946 under the virtually one-party Government of Themistokles Sofoulis, venerable leader of the Liberal Party, whom the British had installed in power in November 1945. The royalist Popular Party had refused from the start to participate in a Government in which it did not hold at least equal power. The left wing EAM coalition had given its support on the Liberal Party's pledge that it would suppress Rightist terror in a matter of weeks, so that fair elections might be held. EAM withdrew its support when security conditions seemed to deteriorate instead of improve. On January 20, for example, rightists in force attacked a number of leftists in the town square of Kalamata, and the Left charged that Government officials had connived in the attack. Subsequently Sofoulis declared that the British Military Mission had made improvement impossible by blocking all his Government's efforts to remove dangerous Rightists from the General Staff and other key positions.

The situation was further exacerbated by economic crisis. At the beginning of the year the gold sovereign reached 181,000 drachmas, and the cost of living index was approximately fifty times the October 1940 base. Strikes were frequent. The Right pressed for immediate elections, as the only remedy for chaos, and urged that the simple majority instead of the proportionate system be used, so that one party might have decisive strength to carry business through in the Chamber. Three ex-Prime Ministers, all right of Center, joined the Popular Party in a Rightist coalition; these were Sofokles Venizelos, George Papandreou, and Panayotis Kanellopoulos. The Government stuck by its decision to hold elections on March 31, and, despite efforts of the Regent Archbishop Damaskinos and others on behalf of the majority system, declared the proportionate representation system would be used.

A crisis was precipitated when on January 21 the Soviet delegate to the Security Council of the United Nations meeting in London asked that the British withdraw their troops from Greece. Foreign Minister John Sofianopoulos, the Greek representative, refused to speak on the issue on the grounds that Greece wished to maintain cordial relations with all its allies, and that it did not become a minister in a Government installed by the British to speak on behalf of the British. Sofoulis declared that the British forces were present in Greece on the invitation of the Greek Government. Sofianopoulos was dismissed even before he reached Athens, and replaced by the more conservative Constantine Rendis. The Russian petition was voted down. In Athens anti-British feeling mounted, not only on the part of the Left, which charged that the British enforced reaction, but in many sections of the Right, on the grounds that the spectacular financial benefits which had been expected as the reward for submitting to British counsel were not forthcoming. On February 11 Ambassador Sir Reginald Leeper and Lt. Gen. Sir Ronald Scobie were replaced by Ambassador Sir Clifford John Norton and Major General Kenneth Crawford. Excitement seethed over the question of postponing the elections. In this agitation Sofianopoulos and Alexander Svolos, the Socialist leader, cooperated with EAM in a campaign to induce the electorate to abstain from voting. Some ten ministers of Sofoulis' swollen cabinet resigned. Sofoulis himself acknowledged that the lists were greatly padded and obsolete and that intimidation by the Right would make a fair election impossible. He said he wished to postpone the elections but had been prevented by British insistence. In an election speech at Saloniki at the end of March he charged that members of his party had been prevented from moving about freely for electioneering purposes. On the other hand the subsequent Report of the Allied (British, American, French—the Russians refused to participate) Mission for Observing the Greek Elections (AMFOGE I), which had been making sampling and other studies for three months before the election, declared that the results fairly represented the will of the electorate and that no intimidation had been used. The Report estimated purposeful abstentions at less than 15 percent of the registration.

In the election of March 31 the Popular Party won a majority of the seats in the Chamber. Panayotis Poulitsas was made Prime Minister and other than Popular Party members of the Rightist coalition were given ministries. But on April 18 the Popular Party assumed all the Ministries, the principal portfolios going to the "Big Four" of the Party: Constantine Tsaldaris, Prime Minister and Foreign Minister; Petros Mavromikhalis, Ministries of War, Navy, and Air; John Theotokis, Minister of Interior (his son Spyros, Minister of Security); and Stefan Stefanopoulos, Minister of Coordination. Non-Popular Party Rightists withdrew from the coalition, alleging high-handedness on the part of the Popular Party leadership, especially in the matter of promoting the restoration of the King.

The Popular Party had based its campaign on the argument that it alone could assert Greece's national rights, especially on the northern frontiers, insisting that democracy would be the vestibule to communism and hence to the enslavement of

Greece by its Slavic neighbors. The Left advocated friendly relations with Greece's northern neighbors and charged that the Rightist agitation against Albania, Bulgaria, and Yugoslavia was calculated to distract attention from pressing internal problems, to justify repressive measures against internal opposition, and finally to precipitate war which would assure their tenure of office and permit perpetuation of their reactionary policies. The Government charged that "autonomist" bands based on Bulgaria and receiving support from Communists within Greece were working for the detachment of Greek Macedonia from Greece for eventual incorporation in a Slavic Balkan Federation. The Left declared that the reports of autonomist activity were much exaggerated and that such activity as there was, was the work of Government and British agents provocateurs. In June the Government made the Communist danger the basis for severe restrictive measures, suspending the articles of the Constitution which guaranteed the security of the individual. Search and seizure might be carried out at all times and without warrant, sentences of drum-head courts might not be appealed but must be executed at once, and those "morally responsible" for crimes were declared equally guilty with perpetrators. Trade union premises were raided and leaders put under arrest, and labor organizations were put under the control of the Ministry of Labor. Hundreds of persons were exiled to the islands, including the respected ELAS Generals Sarafis and Bakirdjis. The armed services were purged of republican elements, and came directly under control of Petros Mavromikhalis, Minister of War, Navy, and Air. Twenty-seven republican (but anti-Communist) generals were retired. The new police chief of Athens was a man who had served under Maniadakis, the chief of Metaxas' security services; his predecessor, Angelos Evert, who had been police chief under Metaxas and during the occupation, was made a permanent official in the Ministry of Security. In the economic field, restrictions on labor relations and prices of which industrialists had complained were removed. To maintain confidence in the drachma, the Government authorized the sale of gold sovereigns from the national reserves at the rate of 136,000 drachmas; but the budget remaining unbalanced, the Government continued to print drachmas, and it seemed that wild inflation would recur when the sale of gold was stopped, as it eventually must be. The temper of the Government is illustrated by a statement made in the Chamber in May that John Rallis, the last quisling Prime Minister, deserved a public monument for his services; when Rallis died in prison at the end of October Popular Party officials provided a sumptuous funeral.

Relations with Russia and its protegés deteriorated. The Russian Ambassador, Admiral Rodianov, whose arrival in December 1945 had been interpreted as a mark of confidence in a Government of which Sofianopoulos was Foreign Minister, rejected the results of the election and left Athens. Bulgarian hostility was aroused by the charges that it connived in the Macedonian autonomist activity, and more by the Greek claims of Bulgarian territory embodied in a memorandum to the Foreign Ministers meeting in Paris on April 25. Bulgaria defended itself by warm counter-charges. The Governor General of Western Macedonia charged that Yugoslavia was waging undeclared war against Greece, and evoked formal protest from Yugoslavia. Agitation was most intense concerning the claims on Northern Epirus-Southern Albania. In July and October there were charges and counter-charges of violation of sovereign territory. The Greek claims aroused a measure of support in the United States, where the Senate passed a resolution approving them. The Foreign Ministers in Paris rejected the claims upon Bulgaria, but voted unanimously to grant the Dodecanese Islands to Greece (June 28, 1946). In Greece as in Cyprus there was agitation for that island to be transferred to Greece. Claims for Turkish Thrace were voiced only by Leftist spokesmen.

Meanwhile the Government pressed for an early plebiscite on the regime question, declaring that only settlement of the question could bring quiet and that only the King could present Greece's national claims convincingly. The opposition, now joined by Venizelos, Papandreou, and Kanellopoulos, pleaded for postponement. An agreement had been made when Sofoulis assumed the premiership that the plebiscite would not be held until 1948; furthermore the AMFOGE report had stated that whereas the opportunities for fraud presented by the inaccuracy of the electoral lists had not been exploited in the March 31 elections, those lists should be thoroughly revised on the basis of a new census before the opinion of the Greek people was again sought on a matter of national import. The British Ambassador agreed to September 1, 1946, the date proposed by the Government, as a means to restoring calm to the country. A smaller Allied Mission (AMFOGE II) comprising only British and Americans, the French having refused to participate, was sent to observe the plebiscite. Doubts as to the genuineness of the plebiscite were widespread, even among moderates. It was pointed out that John Theotokis, whose Ministry of Interior was responsible for conducting the polling, had helped engineer the notoriously rigged plebiscite which had recalled the King in 1935. There was no organized campaign for abstention, and a surprisingly large proportion of the registration voted. Almost two-thirds of the votes were for the return of the King, and AMFOGE II approved the balloting as genuine. A few days after the election the United States aircraft carrier Franklin Roosevelt together with a cruiser and three destroyers called at the Piraeus, and planes from the carrier formed the letters FDR over the skies of Athens. In Greece the gesture was interpreted as indicating American approval of the monarchy, and was accordingly praised by the Right and criticized by the Left.

The King returned to Greece in a British plane on September 28, his entry to the capital from the airport being very heavily guarded. After the plebiscite security conditions deteriorated sharply, and Acting Prime Minister Stylianos Gonatas issued decrees virtually establishing martial law. The Athens police occupied Communist Party headquarters. Increasing numbers of Leftists went to the hills, especially in Thessaly, and Government measures against these bands soon assumed the proportions of a regular war, in which aircraft and tanks were employed. The Government resigned upon the advent of the King, but was immediately reinstated, and resisted efforts, in which leading members of its own Party as well as of the opposition joined, to broaden its base. This pressure, combined with financial scandals in which high Government officials were involved, did produce a shakeup on November 4, by which Petros Mavromikhalis, Spyros Theotokis, and Antonios Stratos (Minister of Labor) were eliminated; but Tsaldaris retained the premiership and the portfolio of Foreign Affairs, and the complexion of the Government continued virtually exclusively Populist.

By the end of November guerrilla operations of

Leftist bands had removed large areas in Northern Greece from Government control, and there were disturbances even in the predominantly royalist Peloponnese. The Government charged that leaders for these bands were being trained in Yugoslavia, and that the bands were being supplied from Albania and Bulgaria as well as Yugoslavia. These countries denied the charges, and on November 25 *Borba*, the organ of the Communist Party in Belgrade, spoke of severing diplomatic relations with Greece. In Athens the centrist *Eleftheria* was reprimanded by the Government for publishing a communiqué of the rebel forces. Leftist spokesmen in Greece denied that arms were being received from abroad and declared that they were being supplied from Greek army sources which were hostile to the Government and to the British. Their assertions seemed to be substantiated at least in part by Government reports of numerous executions of regular army and gendarmerie personnel for treason. On December 6 Prime Minister Tsaldaris arrived in the United States to press his Government's charges that Greece's Russian dominated northern neighbors were providing guidance and material aid to revolutionary elements in Greece.

Production. Previous to the war about 54 per cent of the working population was supported by agriculture and fishing, 20 percent by industry, and 8 percent by commerce. The country was dependent upon imports for more than 25 percent of its total food consumption and for 40 percent of the wheat consumed. Wheat production declined from the prewar average of 700,000 metric tons to estimated 393,500 tons (this is exclusive of the output of Thrace and Eastern Macedonia in 1945. Estimated yields of other crops in 1945, except as stated, were (in metric tons): tobacco (1940), 48,900; currants, 35,000; raisins, 15,000; figs (exportable crop), 39,600; barley, 75,200; oats, 53,800; rye, 24,400; olive oil, 80,000 tons in 1942–43.

Factory production in 1938 (excluding wine, olive oil, and wheat products) was valued at 13,552,000,000 drachmas. Mineral output included iron ore, pyrites, lignite, manganese, lead, zinc, chrome, and nickel-cobalt.

Foreign Trade. In 1941, imports were valued at 4,840,000,000 drachmas (12,215,326,000 in 1940) and exports 3,904,000,000 drachmas (9,079,380,000 in 1940). Chief sources of 1941 imports (millions of drachmas): U.S.S.R., 673; Germany, 544; United Kingdom, 354; others, 3,269. Distribution of exports (in millions): Germany, 1,825; U.S.A., 904; United Kingdom, 486; Italy, 141; others, 548.

Finance. In 1941–42 revenue amounted to 16,500,000,000 drachmas; expenditure, exclusive of occupation costs, 30,300,000,000 drachmas (this includes the amounts of interest due on foreign debts but not paid). Estimates of the cost of Axis occupation levied on Greece varied from 18 to 180 billion drachmas annually, the latter figure included credits extended to the Axis countries by the puppet regime in Athens. Notes in circulation on November 30, 1946, amounted to 468,000 million drachmas.

Transportation. In 1940 Greece had approximately 1,864 miles of railways, 8,440 miles of highways, air connections from Athens to most of the principal European cities, and a merchant fleet of some 607 vessels (of 100 tons or over) aggregating about 1,780,700 gross tons. Much of the transportation and communication network was disrupted or destroyed by the Italo-German invasions of 1940–41. Half the merchant marine was destroyed or captured during the same period.

MOSES HADAS.

GREENLAND. A large island in northeast North America. It is a possession of Denmark (see below under *Government*). Area: 736,518 square miles. Population (1943): 20,163 natives and 500 Danes. The main settlements are Julianehaab, Godthaab (capital), Sukkertoppen, Kutdligssat, Godhavn, and Angmagssalik. The natives speak an Eskimo dialect, while the Europeans speak Danish. Educational facilities include grade schools, high schools, and a training school for teachers. Practically all the inhabitants profess the Lutheran faith.

Production. Cod fishing is the mainstay of Greenland's economy. A total of 7,945 metric tons of cod was produced for salting in 1944. Agriculture is limited to sheep raising in the southernmost part of the west coast. The important minerals produced are cryolite (40,000 tons, 1944) and coal. Marble has been quarried and other minerals are known to exist. Trade during normal times is a monopoly of the Danish Government. During peacetime all exports are sent to Denmark (except for a portion of the cryolite output) and all imports are shipped from Denmark.

Foreign Trade. During World War II communications with Denmark were cut off and foreign trade was with the United States, Canada, and Portugal. Of the total imports in 1944, the United States supplied 52 percent, Canada 38 percent, and Portugal 10 percent. Imports and exports are mainly consumers' goods. There are no customs duties or other import formalities, but the commercial importation of commodities by private firms or individuals is prohibited.

Government. Normally the administration of all affairs pertaining to Greenland is centralized in the Greenland Administration section of the Ministry of State in Copenhagen. A Greenland Committee made up of 8 members of the Danish Rigsdag has charge of all questions pertaining to Greenland that are brought before that body. During the period of World War II, the administration of Greenland was subject to the agreement of Apr. 9, 1941, which was signed by the Danish Minister in Washington, D.C., and the U.S. Secretary of State. This agreement recognized the continuance of the sovereign rights of Denmark, and in order to maintain the status quo in the western hemisphere, allowed the United States the right "to construct, maintain, and operate such landing fields, seaplane facilities, and radio and meteorological installations as may be necessary." The agreement was to remain in force "until the present dangers to the American continent have passed."

GUADELOUPE. A West Indian Department of France consisting of two main islands—Guadeloupe proper (Basse-Terre) and Grande-Terre—and the dependent islands of Désirade, Les Saintes, Marie Galante, St. Barthélemy, and St. Martin (northern part only). On March 14, 1946, the status of Guadeloupe changed from a colony to a department, effective January 1, 1947. Total area, 688 square miles. Population (1939 estimate), 310,000. Chief towns: Basse-Terre, capital (13,638 inhabitants), Pointe-à-Pitre (43,551). Education (1943–44): 131 schools and 25,630 pupils. Chief products: sugar, coffee, rum, cacao, logwood, bananas, manioc. Trade (1944): imports 375,000,000 francs; exports 286,000,000 francs. Budget (1939): 83,608,979 francs (revenue and expenditure balanced). Public debt (December 31, 1938), 12,110,210 francs (franc averaged $0.0288 for 1938; $0.0251, 1939). Roads (1940): 754 miles. Governor, M. Bertaut.

GUAM. The largest island of the Marianas group was ceded to the United States by Spain at the close of the Spanish-American War in 1898. It is situated in the mid-Pacific, 1,500 miles east of Manila, 1,300 miles south of Japan, 3,337 miles from Honolulu, and 5,053 miles from San Francisco. The island has a land area of 225 square miles, extending 30 miles north and south, and 4 to 8½ miles wide.

Population. The population, as of August 1, 1946, totaled 23,486 persons of whom 11,556 were males and 11,858 females. Of these 22,695 were native-born and 791 foreign-born. The native population is mainly of Chamorro stock, a mixture of the ancient Chamorro people with Spanish, Mexican, Filipino, Anglo-Saxon, Japanese, and Chinese strains.

While English is the official language of the government and of the schools, the native Chamorro language is widely spoken in the daily life of the people. The predominant religion is Roman Catholicism. Education is offered in the elementary and high school levels. The enrollment for the school year ending April 1, 1946 was 7,150. During the 1945–46 school year 21 schools were rebuilt and opened and 165 Guamanian teachers employed. Provision has been made for the employment of 25 university trained teachers and supervisory personnel from the United States for service in the Guam educational program. An Adult and Vocational Training program has been instituted for the development of skilled and semi-skilled Guamanian workers. As of April 1, 1946, 280 were receiving vocational training.

Throughout the Japanese occupation the people of Guam remained completely loyal to the United States and cooperated with U.S. Military personnel in harassing the Japanese at the risk of death.

Government. Guam is classified as a United States possession. The inhabitants of Guam are nationals but not citizens of the United States. A senior Naval officer is commissioned by the President as Governor of Guam, and the same officer is designated by the Secretary of the Navy as Commander, Marianas Area and Island Commander, Guam. The government is administered by departments, at the head of each of which is a Naval officer responsible to the Governor and assisted by Guamanian civilians. In each municipality of Guam a Commissioner is appointed as a district representative of the Governor in an advisory and informative capacity. The legislative body is the Guam Congress composed of a House of Council and a House of Assembly elected by popular vote; Councilmen for four years and Assemblymen for two years. The Guam Congress sits in an advisory capacity to the Governor on matters relating to the welfare and development of Guam. The Judiciary consists of the Court of Appeals, composed of a Presiding Justice and four Associate Justices, two of whom are military officers with legal training and background and two are Guamanian citizens; of the Island Court composed of one Guamanian citizen; and of the Justice and Police Courts, both of which are presided over by the same judge, a Guamanian citizen.

Events, 1946. American military forces re-landed on Guam in July 1944 and the island was declared secured from the Japanese August 10, at the cost of 1,352 marines killed and many thousands wounded. Ten months after its recapture it was turned into a fortress and a staging area for the final assault against Japan. Thousands of marines, navy "sea-bees," army engineers, and natives were employed on a 24-hour basis toward the building of harbor installations and airfields to enable B-29 bombers to take off and land after bombing the industrial centers and military installations of Japan, Iwo Jima, Okinawa, etc.

The extent of the damage suffered by the leading cities of Guam during the bombardment by United States warships between June 19 and July 7, 1944, can readily be seen in the fact that all of the 1,750 homes in the capital city of Agana, population 12,000, were destroyed and the towns of Sumay, Agat, Piti, and Asan were completely levelled. Within one year after its recapture by the Third Amphibious Corps, Guam became one of the most powerful United States advanced base in the Pacific. The largest communications system in the world was established in addition to harbor facilities for the largest battleships. Apra harbor handled more cargo than any other forward area port. Fleet Admiral Chester W. Nimitz, and Lt. Gen. Barney Giles, Deputy Commander 20th Air Force, directed the ever-growing air and naval assault on Japan from Guam.

While these military preparations were going on natives were encouraged to work their farms, and during one month the produce totaled 1,250,000 pounds. Two Victory ships, fully loaded with livestock, i.e. bulls, heifers, hogs, chickens, ducks, and turkeys, were dispatched to Guam to replenish depleted stocks. Eight hospitals were built in Guam to care for the casualties on Okinawa and Iwo Jima; 18 planes a day made 16-hour round-trip flights to evacuate the wounded

During 1946 the cities of Agana, Agat, and other communities were in the slow process of reconstruction. The Guam Land and Claims Commission had been appointed to receive and adjudicate meritorious claims of Guamanians for damage to real or personal property or for personal injury or death resulting from the war. As of July 1, 1946, 2,841 claims for damage to property, in the total amount of $7,859,770 55 and 310 injury and death claims had been filed.

On February 20 President Truman signed an expropriations bill making available $6,000,000 for the rebuilding of Agana and other towns razed by United States armed forces in recapturing the island from the Japanese in July, 1944. After long delay the House of Representatives approved the bill late in July.

The Guam Congress, composed of members holding office before the war, met on May 1 for the first time since the Japanese occupation. An election of a new Guam Congress was held July 13, and the members of both houses were selected on the basis of a reapportionment agreeable with existing population distribution.

On May 30, 1946 the war-born Military Government came to an end on Guam and Naval civil government was reestablished. On that date Rear Admiral Charles A. Pownall, USN, was inaugurated Governor of Guam.

A 100-mile-an-hour typhoon swept over Guam on September 21, causing $1,500,000 damages to naval installations and disrupting communications. Few injuries and no loss of life resulted.

Economy. All forms of agriculture and business were disrupted and the principal towns demolished during the war. The gathering of copra, formerly the chief industry on Guam, has almost ceased. Except for small enterprises, such as the making of soap, there is no manufacture on Guam. Most of the civilian population are earning their livelihood at present from employment by the United States Navy. The wholesale trade for July 1946 was $145,212.26 and the retail trade $184,797.03. Sales of

island handicraft in Guam for July 1946 amounted to $5,228.95. The Bank of Guam has been reopened with resources of more than $5,000,000.

GUATEMALA. A republic in Central America. Area: 42,042 square miles. Population: 3,283,209 (1944). Capital: Guatemala City.

Guatemala is the northernmost of the Central American republics. Volcanic highlands separate the broad Pacific coastal plain from the low tableland of the north. A hot climate prevails in the lowlands along the Gulf of Honduras on the east, while temperate climates are found in the intermont basins of the highlands.

The People. Over half of the total population of Guatemala are Indians; the rest are chiefly mestizos and persons of European descent. The south and west are the most densely populated areas of the country. The largest cities are: Guatemala City, 162,826; Quexaltenango, 33,500; and Puerto Barrios, 15,800.

Spanish is the official language, but Indian languages are also spoken. Roman Catholicism is the predominant religion.

According to the 1940 census about one-third of the population over 7 years of age is literate. In 1943 there were 2,784 primary schools with a total of 152,274 students; 69 intermediate schools with a total of 6,552 enrolled; and the National University in the school year 1943 had 694 students. The Guatemalan Government in 1945 embarked upon a 4 to 6 year educational campaign, under which every literate individual between the ages of 18 and 60 (except for individuals especially exempted) is required to teach one illiterate to read and write.

Government. Guatemala is a centralized republic of 22 departments. A new Constitution signed Mar. 11, 1945, replaced that of 1879. The Constitution provides for a unicameral Congress. Members are elected for 4-year terms but may not serve for 2 successive terms. The two regular sessions of Congress are limited to a total of 6 months a year. The president is elected for a 6-year term and may not be reelected until after a lapse of 12 years. He is assisted by a Cabinet of 7 members. Members of the armed forces may not be elected to Congress or to the presidency. Municipal mayors and councils are chosen by direct popular vote. Dr. Juan José Arévalo Bermejo was elected President in December, 1944, and inaugurated on March 15, 1945.

Events, 1946. Guatemala entered 1946 with a new Constitution and a popularly elected President, Juan José Arévalo, who had promised his country's large Indian population extensive social and economic improvements. On January 11 it was reported that the President had removed Jorge Toriello from the post of Minister of Finance. Although Toriello was a former member of the revolutionary triumvirate that deposed General Jorge Ubico from the Presidency in 1944, there had arisen increasing disagreement on national policy between him and the President. Previous to his removal, Toriello had questioned the validity of municipal elections and had demanded a recount, which was denied by the Government. Further conflict with President Arévalo resulted from Toriello's demands for the revision of contracts held by foreign commercial companies and his plan for the establishment of Government-monopoly ports.

At the end of January President Arévalo's popularity was increased by his escape from death when his automobile plunged 600 feet down a precipice.

An agreement to abolish passports between El Salvador and Guatemala was reached on May 17 and hailed as the initial step toward the realization of a much-discussed Central American Union. Signed by President Arévalo and El Salvador's President Castenada Castro, the pact provided for free travel between the two countries on a "Central American" citizenship card, to be issued by a tourist commission. On September 12 representatives of the five Central American republics met in Santa Ana, El Salvador, to discuss the projected Central American Union.

On June 1 the Arévalo Administration moved to eliminate remaining traces of the Ubico regime. The properties acquired by Ubico after he became President, which were valued at $786,984, were put on public auction and the former President's commission as a general was canceled for public violations of the Constitution. The commissions of ten other generals, all in exile, were canceled for various reasons.

Through the summer and into the end of the year, the political and labor situation in Guatemala increased in intensity. On July 14 two army noncommissioned officers were sentenced to ten years in prison for participation in an alleged plot to overthrow the Government. A peaceful crowd demonstrated before the Presidential palace in the following month as a protest against an election law and restrictions on the freedom of the press imposed by newsprint rationing. In an interview with members of the Patriotic Conciliation Committee in October, President Arévalo said he approved of a political accord between the Government and its opponents and promised unrestricted press freedom. He analyzed his administration as leftist, but in no way extremist or Marxist.

The foreign firms in Guatemala received Congressional attention on September 22 with the appointment of a committee to revise contracts with and concessions to all foreign companies. Payments on the British loan by former President Ubico were also under investigation by the committee because of certain doubtful aspects. Earlier in the year Congress passed a labor law requiring all business concerns to employ at least 85 percent Guatemalans. The former law required a 75 percent quota of native employees.

President Arévalo touched on the subject of foreign businesses in a meeting with Mexico's President Manuel Comacho. In a speech at Tapachula President Arévalo created a stir of speculation by saying that Mexico's expropriation of foreign oil properties in 1938 was a "continental guide" for the assertion of national sovereignty. Guatemala would refuse foreign intervention "in support of powerful commercial groups, which will suddenly discover to their sorrow that national sovereignty exists and will be defended even with blood."

Apparently, the reference was made in the direction of the United Fruit Company, whose workers went on strike in mid-October. The Company termed the strike illegal and refused to negotiate until thirty days after the resumption of work. On the day following President Arévalo's Speech, the strike was suspended and the United Fruit Company agreed to rehire hundreds of discharged workers.

On September 8 several thousands of demonstrators, organized by labor unions and the Administration political party paraded in Guatemala City in support of the Government. The parade was intended to answer the protest demonstration in August.

Strikes and slow-downs were prohibited by the Government on December 21 in a law passed on the day before Congress adjourned. The action

was produced as two nation-wide strikes threatened against the United Fruit Company and the International Railways of Central America, both foreign-owned enterprises.

National Economy. Guatemalan economy is agricultural; about 90 percent of the population are engaged in farming. In 1940 over 60 percent of the land cultivated was planted to corn, the chief crop and staple food of the country. Beans are another important staple crop. Coffee, bananas, and chicle are important export crops. The 1944–45 coffee crop is estimated to total 1,000,000 bags of clean coffee. It is estimated that Guatemala has a potential production of 724,000 stems of bananas monthly.

There are small pastoral and manufacturing industries. Meat requirements are met by domestic production. Manufacturing consists chiefly of processing agricultural products and of making such items as textiles, leather goods, cement, soap, furniture, etc.

Foreign Trade. The chief export products are coffee, bananas, and chicle. Coffee exports during the quota year 1944–45 totaled 855,170 bags of 60 kilograms each, of which 765,388 bags, or 89.5 percent, were shipped to the U.S.; the remainder went principally to Canada and Switzerland. During 1944 Guatemala exported 4,495,078 stems of bananas, about a 60 percent increase over stems exported in 1943. A total of 3,480,295 pounds of chicle and chiquibul was extracted and shipped during 1944. Exports of honey and beeswax increased in 1944 over the preceding year. In 1942 total exports were valued at 20.4 million dollars, of which the U.S. took 92 percent. Exports to the U.S. from Jan. 1 to Oct. 1, 1945, totaled approximately $21,500,000. Principal exports in order of value were: coffee, bananas, chicle, lumber, citronella oil, hand-woven Indian textiles, and lemongrass oil.

GUGGENHEIM MEMORIAL FOUNDATION, The John Simon. A foundation created in 1925 by Simon Guggenheim and his wife as a memorial to a son who died at the age of 18. The original endowment was $3,000,000 enlarged to $7,000,000 by 1939, and further increased upon the death of Simon Guggenheim in 1941. In fulfilling its purpose to "promote the advancement and diffusion of knowledge and the appreciation of beauty" the Foundation awards Fellowships, normally $2,500 a year, to citizens of the United States, Canada, and certain Latin American countries. Since its establishment the Foundation has granted 1,704 Fellowships with stipends totaling $3,645,360. In the year 1946 the Foundation granted 165 Fellowships with stipends totaling $430,100.

GYMNASTICS. The stress on physical fitness during the war years was reflected in the record field of 203 gymnasts that took part in the National A.A.U. championships at the New York A.C. in 1946. Top honors in the men's division were regained by a well-balanced team from the Swiss Gymnastic Society of Union City, New Jersey, which scored 49 points to dethrone the 1945 winners from Penn State College, runner-up with 41 tallies.

All-around victor was Frank Cumiskey of the Swiss team, who also kept his titles on the horizontal bar and the side horse.

Star of the women's group was Miss Clara Schroth of the Philadelphia Turners who retained her all-around laurels and, in addition, won four other titles.

THOMAS V. HANEY.

HAITI. A West Indian republic. Area: 10,700 square miles. Population: 3,500,000 (1945). Capital: Port-au-Prince.

Over 80 percent of the surface of Haiti is mountainous. Lowlands along the northern coast are moist, while the lowlands in the west are semi-arid. An elevated basin forming the Plaine Centrale lies adjacent to the southern margin of the Cordillera Central, and between the Cordillera and the mountains of the southern peninsula is a deep depression known as the Cul de Sac. High temperature and excessive evaporation lower the effectiveness of the rainfall. The climate in centers of population is warm, generally pleasant, and healthy.

Population. The population of Haiti is concentrated along the northern and southern coasts. About 95 percent is Negro, the remainder chiefly mulatto. The leading cities are: Port-au-Prince, 150,000; Cap-Haitien, 12,000; and Aux Cayes, 11,900.

French is the official language, but most of the people speak Creole French. The predominant religion is Roman Catholic.

It was estimated in 1944 that about 8 percent of the population over 10 years of age is literate. In 1941, 85,000 pupils received primary instruction in 835 schools; 35 intermediate schools enrollment, and six institutions of higher education had a total of 236 students. Under a recent reorganization, higher education will be offered in private and special schools organized by the state or under state auspices, in addition to that available at the University of Haiti.

An extensive program of popular education has been initiated by the new government.

National Economy. Agriculture is the basis of Haitian economy. The most important crops are coffee, cotton, sugar, sisal, bananas, and cacao. Haiti's annual coffee crop averages 31,000,000 kilograms. In 1945 molasses production totaled 2,374,183 gallons, most of which was shipped to the U.S.; sugar production reached 50,266 short tons. In recent years there has been intensive development of the sisal industry, and production was expected to reach about 10,000 metric tons in 1945. Ginned cotton production in recent years has averaged about 2,727 metric tons. Agriculture is having a new impetus with the development of irrigation projects and technical farming.

Mineral resources of Haiti have not been developed, but are reported to be extensive. Manufacturing is confined chiefly to processing of coffee, sugar, and sisal, with some soap and tobacco products. A handicraft industry of some importance has been developed in recent years.

Foreign Trade. Haiti's total foreign trade in 1944 was valued at $31,826,000, the highest recorded since the late 1920's. Exports in 1944 were valued at $15,786,000. Of the total value, the United States took 67.3 percent; the United Kingdom 11.7, Canada 10.5, Colombia 5.4, Switzerland 1.9, Cuba 1.1. Banana exports for 1944–45 totaled 4,104,825 stems valued at $2,506,931. The entire 1944–45 sugar export totaling 32,651 metric tons, was shipped to the United Kingdom, under the International Sugar Agreement. Exports of coffee for 1944–45 totaled 23,116,197 kilograms, valued at $7,290,136. Exports in 1944 of sisal totaling 7,985 metric tons were valued at $1,381,089; of cotton totaling 3,733 metric tons, at $962,616; of cacao totaling 1,341 metric tons, at $205,341.

Haitian imports in 1944 were valued at $16,040,000, of which the U.S. supplied 70.8 percent; Mexico 14.8; Argentina 3.8; Curaçao 2.8; India 2.4; Cuba 1.9; Canada 1.6; and the United Kingdom

1.4. Principal imports were: cotton textiles, foodstuffs, manufactured products, chemicals and pharmaceuticals, iron and steel products, and fuel and lubricating oils.

Government. Under the Constitution of 1932 Haiti is a centralized republic of 5 departments. It has a bicameral National Assembly: a Senate of 21 members, and a Chamber of Deputies of 37. The president is elected for a 6-year term and is aided by a Cabinet of 6 ministers. President Dumarsais Estimé was elected on August 16, 1946.

Events, 1946. Haiti was gripped by a full-scale revolution in early January that deposed President Elie Lescot on January 11 and put a military junta into power. The revolt was primed when President Lescot banned the student newspaper *La Ruche* and arrested its editors for printing anti-Lescot material. Students who took to the streets in protest were joined by the towns-people of Port-au-Prince in demonstrations that reached their climax on January 10. Several persons were reported killed in clashes with the police as most of Haiti's population went on strike.

On the following day army Chief of Staff Col. Frank Lavaud persuaded Lescot to resign. Lescot, who had been President since 1941 and former Ambassador to the United States, was given safe conduct out of the country and fled to Miami, Florida.

A three-man military junta, headed by Col. Lavaud and including Major Paul Magliore, commander of the national palace military household, and Major Antoine Levelt, director of the military academy, immediately assumed control of the country.

A variety of leftist and liberal political groups formed and pressed Colonel Lavaud for a definite election date. Lavaud called a national Congressional election for May 12. The Congress would act as a Constituent Assembly to write a Constitution and then elect a President. Until that time, Lavaud said, a widely representative junta Cabinet would rule the country and "all freedoms necessary for establishing an entirely democratic government" would be guaranteed.

With the end of the Lescot regime, the people of Haiti expected a salutary revision in their country's economy which had forced a major portion of the population to marginal living. When the junta did not revive Haiti's economy immediately, an angry mob rioted in the Port-au-Prince streets on February 18. The riot occurred after the Ministry of Public Works informed them that the jobs available in large public works program were not sufficient to meet the demands of the entire group.

The United States announced on April 8 that the military junta of Haiti was recognized as the interim regime and diplomatic relations would be resumed. The United States Department of State said that recognition was made after consultation with other American republics and for the following reasons: (1) The military junta was in control of the Government; (2) it enjoyed the support of the people; and (3) it promised to fulfill all international obligations.

In a relatively peaceful election, with minor post-balloting disorders on May 12, political extremists lost as fifty-six of the fifty-eight seats were won by the Democrats, representatives of the mulatto ruling class. On August 16 the National Constituent Assembly elected Dumarsais Estimé to the Presidency. The President had been Secretary of Education in 1937 under President Stenio Vincent and was the only Deputy who refused to vote for Lescot in 1941 and 1944.

HANDBALL. Angelo Trulio, 40-year-old veteran representing the Ninety-second Street Y.M.H.A. of New York, added another trophy to his growing collection of prizes when he captured singles honors in the national A.A.U. four-wall softball tournament at San Francisco last season.

After eliminating Joe Platak of Long Beach, California, the defending title-holder, in a semi-final upset, the Brooklyn ace turned back the challenge of Gus Lewis, Buffalo steeplejack, in the last round. Trulio, who also won New York State laurels, subdued the 27-year-old Lewis, the national Y.M.C.A. king, by 21–13, 21–5.

National doubles honors were annexed by the New York A.C. combination of Eddie Linz and Frank Coyle.

THOMAS V. HANEY.

HAWAII, Territory of. A territory of the United States, composed mainly of the eight inhabited islands of the Hawaiian Island group, in the North Pacific Ocean and within the tropics. Honolulu, the capital, is located on Oahu Island, 2,408 miles from San Francisco. The islands that form the Territory have a combined area of 6.407 square miles.

The People. The population of Hawaii as of Apr. 1, 1940, was 423,330, as compared with an estimated population of 465,339 on June 30, 1941. There were 387,197 citizens (139,299 Caucasians, 124,351 Japanese, 52,445 part-Hawaiians, 24,886 Chinese, 18,050 Filipinos, 8,460 Puerto Ricans, 4,628 Koreans and 832 others), as compared with 78,142 non-citizens (35,183 Japanese, 34,010 Filipinos, 4,351 Chinese, 2,328 Caucasians, 2,253 Koreans and 170 others). Prior to the war the ratio of males to females was 2 to 1, but after Pearl Harbor the ratio increased to 150 to 1. In 1941 Honolulu had 200,158 inhabitants.

In addition to the University of Hawaii there are 196 public schools (12 high schools, 17 intermediate, 145 elementary, and 22 vocational and miscellaneous) and 121 private schools (elementary through college) on the islands.

Economy. The three leading industries are the tourist trade, sugar and pineapple. Although the tourist industry had been seriously handicapped by the war it was soon revived by the resumption of commercial air and steamship services. Hawaii had 94 modern hotels located as follows: 70 on the Island of Oahu, 8 on Hawaii, 3 on Kauai, and 13 on Maui. Exports to the United States mainland of Hawaiian products were valued at $82,618,845 of which unrefined sugar represented $52,277,853 and canned pineapples $18,728,401. Imports from the United States mainland were valued at $185,900,000. Edible animals and animal products, vegetable food products and beverages, and textile fibers and manufactures were the chief commodities imported.

Government. The head of the Territorial Government is Governor Ingram M. Stainback, who holds office by appointment of the President of the United States for a term of four years. The registered voters of the Territory elect quadrennially 15 Senators and biennially 30 Representatives, constituting the Legislature. This body passes appropriations and other acts within the Territorial authority. The popular vote elects to each U.S. Congress a Delegate (Joseph R. Farrington), with a voice, but no vote, in the House of Representatives.

Events, 1946. At the outset of 1946 Hawaii resumed her campaign, which had lapsed during the war years, to be admitted to the Union as a full-fledged state. At the hearings on statehood before the United States House Territories Fact-

Finding Subcommittee, the Hawaii Sugar Planters Association on January 8, introduced a report on the Islands' war record which showed that Hawaii had efficiently answered all wartime demands on her people, industries, and businesses.

A few days after President Truman's Congressional message, in which he urged statehood for the Islands, the House sub-Committee reported on January 24 that "the Territory of Hawaii now meets the necessary requirements for statehood." Recommending immediate consideration of legislation to admit Hawaii as the forty-ninth State, the Subcommittee said that Hawaii's mixed racial complexion (Caucasians, Hawaiians, part-Hawaiians, Japanese, Chinese, Koreans, Puerto Ricans, and Filipinos) represented no barrier to statehood. The report showed that the Caucasian population had increased steadily since 1878 and had reached 34.4 percent of the total population, while the Japanese population, 32.5 percent at the time of the report, reached its peak in 1940 and was on the decline.

The United States military forces' administration of martial law and the suspension of the writ of habeas corpus in Hawaii during the war was recommended for investigation by the United States Senate Judiciary Committee on January 21. The recommendation was prompted by numerous complaints charging that the application of military law had resulted in injustices to civilians.

The problem was crystallized on February 25 when the United States Supreme Court ruled that the military courts established under martial law had no power to try civilians. In the majority opinion, Justice Hugo L. Black found that Congress, in approving the Hawaiian Organic Act, intended the military to act vigorously and maintain orderly civil government in defending the Islands against invasion, but did "not intend to authorize the supplanting of courts by military tribunals."

A series of Tidal waves, crossing the Pacific Ocean in a 4,000 mile sweep, struck Hawaii on April 1, causing at least 205 deaths. During the Summer the United States Congress approved legislation authorizing Federal financial aid in rehabilitating of tidal wave damage, estimated at $25,000,000.

With the end of the war, a struggle between organized labor and the Hawaiian Sugar Planters' Association over wages and working conditions developed into a problem that was felt in all aspects of Hawaii's economy. When negotiations between the International Longshoremen's and Warehousemen's Union (C.I.O.) broke down, 26,000 plantation workers struck on September 1 on the thirty-three plantations that comprise Hawaii's sugar industry. The union demands included a 65-cent minimum wage, 40-hour week, and union shop.

After several weeks of negotiations, agreement was reached on November 15 that provided for a minimum gross wage of 70½ cents an hour for the plantation workers. The 48-hour week was retained and the question of the union shop was by-passed in favor of union security provisions which were carried in the old contract that expired on August 1. The agreement gave every worker a net wage gain of at least 18½ cents an hour.

In the national elections held on November 5 the Republicans retained control of the Hawaiian legislature and Joseph F. Farrington was re-elected as Delegate to the United States Congress on the Republican ticket. John H. Wilson, Democrat, who was supported by the C. I. O. Political Action Committee, defeated the Republican candidate, Herbert M. Richards, in the Honolulu mayorality contest.

HAYDEN FOUNDATION, Charles. A charitable institution, established in 1937 to assist needy boys and young men to attain moral, mental, intellectual, and physical well-being through providing scholarships and aiding educational institutions; through building, assisting, or equipping clubs, gymnasia, and recreation centers; and through aiding hospitals.

The trustees are empowered to use the income or the principal of the fund in the furtherance of other charitable or educational projects as contemplated in Mr. Hayden's will. The will directs that in the disposition of the funds, preference be given to the activities of the Foundation within New York City and Boston, although it also provides that work may extend to other places in the United States.

The Founder was particularly interested in boys' clubs, therefore, the Trustees confine present activities to that work and limit grants-in-aid to organizations operating in New York and Boston. Trustees. J. Willard Hayden, President; Edgar A. Doubleday, Executive Vice President and Treasurer; Erle V. Daveler, Vice President. Office of the President: 85 Water Street, Boston 7, Massachusetts. Administrative Office: 25 Broad Street, New York 4, New York. The total capital assets are approximately $45,000,000.

HEATING AND VENTILATING. A United States Weather Bureau official reported in mid-year that the trend toward warmer winters in the United States which began about 1905 apparently reversed about 1936 and that we are now on the upward scale of a cycle tending not only toward colder winters, but cooler summers—a trend of considerable interest to heating, fuel, and air conditioning interests. A 9 percent saving in heat requirements, resulting from taking advantage of the sun's heat, was shown by research conducted at Purdue University, where two houses were tested, identical, excepting that one had 12 percent of wall area in glass while the other had 22 percent of wall area in glass to allow solar heat to enter. Foreign interest in solar heat was reported from Russia, where a mirror installation which captures the sun's rays has developed boiler steam pressures of 29 pounds per square inch during a 30 minute demonstration at a Russian preserve factory. Additional heliostats are being built in that country.

A strike of Pittsburgh's electric utility workers created an unusual situation in the fall because downtown Pittsburgh is largely heated by steam provided by the Allegheny County Steam Heating Company, whose workers belong to the same union and were also on strike. Emergency boilers were set up in the streets in front of several large store and office buildings. Tests made in Detroit early in the year in an office building indicated that steam savings up to 25 percent where possible when steam was shut off at night, as compared to allowing steam to remain on during the time when the building was not occupied.

An installation intended to provide answers to certain problems in regard to radiant heating was made in the new plant of the A. O. Smith Corp. in Kankakee, Illinois. Forty miles of piping including wrought iron, copper, and steel were laid in the floors in several dozen separate systems. Radiant heating was provided for the new Martin 202 airliner in mid-year. Several additional companies brought out baseboard radiators designed to replace the conventional baseboard, the objective being to make the heating element practically invisible.

Reports from Great Britain indicate that research is being conducted on the use of metallic wall paper to prevent the escape of heat. Radiant energy striking the metallic surface is reflected back into the room. The time taken for the wall surface to reach a given temperature would be reduced between 20 and 60 minutes by the use of such material. Conversely, insulation buried in the interior of the wall was said to have little effect on the rapidity of warming the room. An electric cable intended for radiant heating and which is simply buried in the plaster of a room is being used in the Pacific northwest. This cable has also been used in decorative screens, the radiant energy tending to heat the adjacent space; these methods are practicable where electrical energy is available at low cost.

New Zealand is reported as studying its Rotorua thermal regions to determine what use can be made of the heat available from underground volcanic springs.

Coal burning hand-fired furnaces and stoves that are virtually smokeless will be available in 1948, according to a prediction made by the University of Illinois. Early in the fall of 1946, the National Coal Association began organization of a Better Home Heating service plan under which coal dealers would set up facilities for serving their customers on a twenty-four hour basis. Funds for financing the program will come from the retailers and will be financed by the National Coal Association up to two cents per ton.

A utility unit which comes as a package and which provides space and water heating, plumbing, refrigeration, kitchen and bathroom facilities, was placed on the market by Borg Warner and installed in test homes in Kalamazoo during the summer.

Gas made rapid strides in heating during the year and to such an extent that numbers of large utilities such as those in and around New York, Rochester, and Buffalo proposed to deny all applications for house heating service using gas due to the fact that the capacity of their mains on peak load days had been reached. Another index of this trend was revealed in a study of the heating and fuel plants for 629,000 dwelling units built for the Veteran's Emergency Housing Program, which showed that gas leads in the choice of builders for fuel for heating, 52 percent of the plans calling for this fuel. Coal accounted for 27 percent and oil the remaining 21 percent of the houses.

Further progress was made in the development of the heat pump—a refrigerating unit used for both heating and cooling of buildings—when American Gas and Electric Service Corporation sponsored meetings of electric utility companies throughout the country at which it was proposed that the utilities purchase 1,000 such heat pumps for house heating and cooling, and 10,000 units for heating hot water, all of which would use the reverse cycle heat pump principle. As part of its Small Homes Research program, the University of Illinois completed a one-story five and a half room, modern home in which studies of warm air heating will be made. The Bureau of Mines announced development of a stoker-fired hot water heater for houses which can supply hot water for a month at a cost less than one dollar. It burns sub-bituminous coal.

Following the installation of a modern ventilating system in a large foundry in Cleveland, it was found that labor turnover was reduced from 20 percent to 6 percent per month. Fifty-three fans capable of supplying and removing 25,000 tons of air per hour will ventilate the new Brooklyn-Battery tunnel in New York City, it was reported in September. (Also see AIR CONDITIONING AND REFRIGERATION.)

CLIFFORD STROCK.

HECKSCHER FOUNDATION FOR CHILDREN. An organization founded by August Heckscher (1848–1941) to promote the welfare of children. The Foundation was incorporated March 15, 1921 and occupies a building at 346 West 89 Street, New York 24, N.Y. It maintains benevolent, educational, recreational and welfare activities. It sponsors a Heckscher Children's Symphony Orchestra, composed of sixty young musicians from the ages of seven to seventeen, which gives Concerts five times a year with free admission to the public. It provides scholarships for deserving children talented in cultural arts; it provides milk, clothing and financial aid to childen of families referred to it by other organizations.

HOCKEY. Montreal's Canadiens returned to the highest spot in professional hockey last season, when they roared through to their third straight championship in the National League race and maintained their fast play through the Stanley Cup series to capture the sport's most coveted prize for the second time in three years.

The Flying Frenchmen routed the Chicago Black Hawks in four straight contests in the semi-final playoffs for the cup, while Boston's Bruins were winning four out of five games with Detroit, to enter the ultimate round. Paced by their stellar captain, Toe Blake, the Canadiens defeated the Bruins, 4–3, 3–2, 4–2, 6–3 to regain the cup they had relinquished to Toronto the previous season. Although Boston waged a bitter fight in the series, forcing the champions to three overtime games, it was able to win only the fourth contest, and that in an extra period, by a score of 3–2.

Much of the credit for Montreal's high ranking was due to the cool defensive work of Bill Durnan, who won the Vezina Trophy, annual award to the league goalie with the lowest number of goals scored against him. Handicapped by injuries that kept him out of ten contests at midseason, Durnan allowed 104 goals for an average of only 2.6 per game and turned in four shutouts in 40 contests.

The Lady Byng Trophy for good sportsmanship and high standard of play was won by the popular Toe Blake, while Max Bentley of Chicago, the circuit's top scorer with 61 points, annexed the Hart Trophy, most valuable player prize. Although hampered by injuries, Bentley tallied 31 goals and 30 assists to beat Gaye Stewart of Toronto who had 52 points. The Calder Memorial Trophy, granted to the year's outstanding rookie, went to Edgar Laprade of the New York Rangers.

Although the league failed to produce its pre-war standard of play there was a continual gain in attendance around the circuit and the Stanley Cup playoffs resulted in a record pool of $90,160 that was divided among the four competing teams.

Laurels in the Eastern League were won by the Boston Olympics for the third straight season, but the Olympics lost to the Vancouver Canucks in the playoffs for the Walter E. A. Brown Trophy, emblematic of the United States amateur championship. Buffalo's Bisons took American League honors for the third time in four years, and the Manhattan Arrows annexed the Metropolitan Amateur League crown, although they were upset by the Brooklyn Torpedoes in a series for the

Lester Patrick Trophy after the regular campaign.

The 1945–46 season saw the retirement of Mervyn (Red) Dutton as President of the National League. Dutton, whose long career as player, manager, and league head made him one of the most colorful figures in hockey history, was succeeded by Clarence Campbell, young Alberta lawyer.

THOMAS V. HANEY.

HONDURAS. A Central American republic. Area: 59,161 square miles. Population: 1,201,310 (1945). Capital: Tegucigalpa.

The land surface of Honduras is largely mountainous, except for the southern coastal lowland and a few deep river valleys in the north. Most of the settled areas in the highlands range from 3,000 to 4,500 feet in elevation. The northern half of the country is wet and tropical; the south and southwest have tropical dry-winter climate.

The People. About 86 percent of the total population of Honduras are mestizos; the rest are divided among Indians (9 percent), Negroes (2.2 percent), and persons of European descent (1.8 percent). The Indians live in the highlands; the negroes on the north coast. Highest population density is in the southwest. The largest cities are Tegucigalpa, 47,200; San Pedro Sula, 20,400; and La Ceiba, 11,300.

Spanish is the official language, Roman Catholicism the prevailing religion.

It is estimated that 52 2 percent of the persons over 7 years of age are literate. In 1945 there were 61,806 students in primary schools; 2,826 students enrolled in 22 intermediate schools; and 467 students in the Central University.

National Economy. Honduras has an agricultural economy. The chief export crops are bananas and coffee. Other export crops are: tobacco, citrus fruits, coconuts and copra, citronella, and loofa sponges. Production of abacá was begun in 1944. Domestic food crops include: corn, beans, and rice. Cattle-raising supplies meat for the domestic market and the most important export to countries other than the U.S. Honduras also exports forest products, chiefly mahogany, pine, crude rubber, liquidambar and turpentine. Gold and silver are the most valuable mineral exports.

Small manufacturing establishments supply the domestic market with such articles as cotton goods, yarns, cigarettes, matches, soap, and candles.

Foreign Trade. Honduran exports and imports attained almost prewar levels in 1944–45, merchandise trade being valued at $25,440,556. The total value of exports was $12,133,070, of which bananas and precious metals accounted for 53 percent. More than 83 percent of total exports for 1944–45 were shipped to the U.S. During 1945, banana exports totaled 12,906,716 stems. Coffee exports to the United States amounted to 6,000,000 pounds. Other significant export items for 1945 were: gold bullion valued at $740,199; silver valued at $1,374,857; 63,089 pounds of loofa sponges; 13,799,114 pounds of coconuts.

The value of merchandise imports during the fiscal year 1944–45 totaled $13,247,486. The U.S. supplied imports totaling about 66 percent of the total; El Salvador provided about 7 percent, and Mexico 7 percent.

Government. The Constitution of 1936 provides for a centralized republic of 17 departments and 1 territory, and a unicameral National Congress of 45 members. The Congress meets in regular session on Dec. 5 each year for 60 to 100 days. The President and members of Congress are directly elected for 6-year terms, and the President may not succeed himself in office. He is aided by a Cabinet of 6 ministers. General Tiburcio Carías Andino became President in 1933 for a 4-year term which was extended to Jan. 1, 1943, and later to Jan. 1, 1949, by constitutional amendment.

Events, 1946. After the Honduran Congress on January 22 lifted the state of siege that existed since January 3, 1941, it was reported that several newspapers criticized the policies of President Carías. In retaliation the President reportedly ordered the arrest of many newspaper editors. Several editors who escaped to Guatemala alleged that Abraham Cunera and Adolfo Miralda, editors of *El Libertador* and *La Tribuna*, both of La Ceiba, were arrested. It appeared that President Carías was attempting to prohibit any opposition to his regime from taking root in Honduras.

On March 7 the Congress approved legislation forbidding foreigners to engage in "totalitarian or anti-social" activities.

The first International Congress of Caribbean Archaeologists met in Tegucigalpa on August 1 and held additional sessions in Comayagua, San Pedro Sula and Copan.

In May the military attaché of the United States Embassy in Tegucigalpa awarded medals to several members of the Honduran Air Force for patrol work in the Atlantic area during the war.

HONG KONG. A British crown colony in southeastern China at the mouth of the Canton River. It consists of the island of Hong Kong (area about 32 square miles), the Kowloon peninsula and the New Territories. Total area of colony, 391 square miles. Population in 1940, exclusive of refugees from China, 1,071,893, of whom all but 24,125 were Chinese. The island surrendered to the Japanese December 26, 1941, and was reoccupied August 30, 1945.

The colony is administered by a governor, assisted by an executive council and a legislative council of 18 members. When Sir Mark Young reassumed office as civil Governor on May 1, 1946, succeeding Vice Admiral Sir Cecil Harcourt, military Governor, he announced that the British Government intended to revise the colony's constitution in such a way as to permit a greater measure of self-government.

The Governor, after consultations, subsequently formulated a proposal for a municipal council of 48 members, one-half of whom would be Chinese. The Hong Kong Chamber of Commerce, however, proposed a council of 16 members, apparently to blend Chinese membership with the original European element as the Shanghai Municipal Council had done for many years in the International Settlement.

Reconstruction Problems. Several grave economic and social problems remained after Hong Kong had been reoccupied and assumed the outward appearance of prosperity. There was a severe shortage of rice and the Government had to fix a low rice ration. Currency inflation appeared, although the Hong Kong dollar was nominally pegged to sterling, bringing black markets with it. Strikes and other labor troubles were common in 1946.

There was a flight of capital to Hong Kong, and of thousands of Chinese, both rich and poor, as well. The poorer classes appeared to be attracted by the rice ration and by Hong Kong's employment opportunities in comparison with Canton. The wealthy sought the comparative security of the British flag, under which they could live untaxed, with the opportunity of buying luxuries. Housing

and transportation facilities were far less than adequate for the growing population.

Trade Revival. Trade is the life of Hong Kong, which has been a free port and a port of call for ship lines operating across the Pacific. In spite of many difficulties, such as that of obtaining textiles, in the first nine months of 1946 imports from all countries were $110,750,000, as compared with $40,000,000 in the corresponding period in 1939, and exports were $97,750,000 ($42,500,000 in 1939). American goods formed more than one-half of the imports.

The fishing industry, which was harshly treated by the Japanese because of its part in maintaining communications with Free China, has shown remarkable recuperative powers. Junks had been destroyed and much of the fishing population disappeared. After reoccupation, the Military Government furnished loans to junkmasters. Later a wholesale market was established and a Fisheries Cooperative set up. The number of junks has increased from 283 at the time of reoccupation to more than 5,000 in 1946.

ALZADA COMSTOCK.

HOSPITALIZATION, Federal Board of. An advisory Board of the U.S. Government, organized in 1921 to coordinate the hospitalization activities of the medical branches of the Army and Navy, the U.S. Public Health Service, the U.S. Veteran's Administration, St. Elizabeth's Hospital, and the Commissioner of Indian Affairs. On May 7, 1943, it was also designated as an advisory agency to the Bureau of the Budget. It has been charged with the development of a complete over-all program for providing hospitalization for the veterans of World War II. Chairman: James E. Webb.

HOWLAND ISLAND. A mid-Pacific island (0° 49′ N. and 176° 40′ W.), belonging to the United States. It lies athwart the main steamship lanes and the Pan American Airways route from Honolulu to New Zealand and Australia. An aerological station was established during 1936 by the United States Dept. of the Interior.

HUMAN NUTRITION AND HOME ECONOMICS, Bureau of. A Bureau of the U.S. Department of Agriculture, established as the Office of Home Economics in 1923. To meet the demand of American families for scientific facts to aid them in the best use of their resources, the Bureau conducts research on food, fiber and other products of agriculture contributing to everyday living, and on economic problems that affect rural family living. Chief: Hazel K. Stiebeling.

HUNGARY. A state in central Europe. Area: 35,875 square miles (1938 estimate). Population: 9,106,252 (1938 estimate). Chief cities (with November 9, 1939, population figures): Budapest (the capital) 1,115,877, Szeged 131,893, Debrecen 122,517, Kolozsvár 100,844, Kecskemét 83,732, Nagyvárod 82,687, Miskolc 73,503, Ujpest 72,940.

Education and Religion. See YEAR BOOK for 1944.

Production, Foreign Trade, etc. For Hungary's economic situation before and during World War II see YEAR BOOK for 1944, *Statistical Year-Book of the League of Nations*, 1942/44, and *Foreign Commerce Weekly*, Mar. 17 and 31, 1945 (U.S. Dept. of Commerce, Washington, D.C.).

Finance. Budget estimates (1944, including estimates of revenue and expenditure for annexed territories which were evacuated by Hungary on Jan. 20, 1945): revenue 5,866,700,000 pengö; expenditure 6,147,100,000 pengö. The public debt increased from 1,937,400,000 pengö on June 30, 1939, to 6,501,000,000 pengö on Dec. 31, 1943. For the year 1944 the service of the public debt required 363,800,000 pengö. It was reported in the press that notes in circulation totaled 106,000,000,000 pengö on Oct. 30, 1945.

Government. After the November 4, 1945, elections that gave the Smallholders party a majority in the legislature, a coalition Government was formed, giving the Smallholders party nine portfolios, the Communists four, the Social Democrats four, and the National Peasants one. In the meeting of the National Assembly, on February 1, 1946, during which Hungary was declared a Republic, Dr. Zoltan Tildy, leader of the Smallholders party, was elected President.

Events: *New Republic.* In mid-January of 1946 Premier Zoltan Tildy, baron, Calvinist clergyman, and leader of the Small Landowners' Party which won the elections of November 4, 1945, announced to the world that Hungary would become a republic with a constitution guaranteeing popular liberties. On February 1 the National Assembly proclaimed the end of the thousand-year-old Magyar monarchy and elected Tildy to the Presidency for a four-year term. His new post was comparable in its powers to that of the British Sovereign or French President rather than to that of the Chief Executive of the United States.

Communist leader and Deputy-Premier Matthias Rakosi became interim Premier, but was immediately replaced by Ferenc Nagy, also of the Small Landowners' Party, who held the premiership during the balance of the year. The end of the old order was symbolized by the execution on February 28 of ex-Premier Bela Imredy (see YEAR BOOK for 1945, p. 262) and by the return to private life, on his country estate near Munich, of ex-Regent Horthy, following his release on January 2 from a Nuremberg jail where he had been held as a possible prosecution witness in the trial of war criminals. The aging Regent was not brought to trial for his own crimes. The kingless kingdom which he had helped bring to ruin returned in 1946 to the republican tradition of 1918 and 1848

Politics: Between Vatican and Kremlin. Predominantly Catholic Hungary, occupied by Soviet armies, remained poised in uneasy balance between two poles. Rome was locally represented by Primate Joseph Cardinal Mindszenthy, foe of agrarian reform, who joined his fellow-Cardinals in Vatican City for the ceremonies of mid-February. Moscow was represented initially by Marshal Voroshilov and later by Lt. Gen. V. P. Sviridov, Chairman of the Allied Control Council. The Communist Party retained control of the Deputy Premiership (Rakosi), the Ministries of Communications (Ernst Gero), Social Welfare (Erik Molnar) and Interior (Ladislas Rajk) and the Secretaryship (Zoltan Vas) of the six-man Supreme Economic Council. Attacks upon the latter body, coupled with "chauvinist" demands for frontier revision, on the part of Dezso Sulyok led to his expulsion in April from the Small Landowners' Party under pressure from the Left. His efforts to form a new "Hungarian Freedom Party" were temporarily frustrated by the Soviet authorities, though his opposition group was functioning, albeit without notable success, by the close of the year.

Soviet forces in Hungary were substantially reduced by summer, but Moscow's concern with Magyar politics was not thereby diminished. In a note of June 28 Lt. Gen. Sviridov demanded the suppression of three Catholic youth organizations

and of the Boy Scouts; the permanent exclusion of Count Dessewffy and Gyeorgy Parragi from journalism; the lifting of parliamentary immunity of two deputies, Gyulay and Filler, charged with anti-Soviet agitation; the dismissal of various other minor officials; and the cessation of anti-Russian propaganda within the Catholic Church. The individuals and organizations thus denounced were all accused of "Fascist" activities.

The American and British members of the Control Council protested against these demands, but Premier Nagy yielded to them on July 11, perhaps fearing that rejection would lead to the ousting of his Cabinet in favor of a Communist-Socialist regime. On September 5 Cardinal Mindszenthy accused the government of failing to "defend the honor of the Catholic Church" and threatened to "impose with the spiritual power of the church severe punishments upon those who decreed and implemented dissolution of the Catholic associations."

Just as the "Third Rome" (i.e. Muscovy) triumphed over the First in this contest of wills, so Soviet determination to destroy the remnants of Magyar feudalism produced a fundamental alteration in the structure of Hungarian agriculture. The old ruling class of rural magnates was liquidated with the distribution of their estates during 1945–46 among some 800,000 peasants. This fragmentation of large holdings, however, threatened a decline of grain production and posed two alternatives: collectivization on the Soviet model or intensive garden farming on the Dutch and Danish models, with emphasis on vegetables and dairy products. The latter choice seemed certain to prevail in view of the determination of the Government and the peasant leaders to base the new Hungary on small independent proprietors. This development foreshadowed the withdrawal of Hungary from the European and world wheat market, but promised an ultimately higher standard of life for the peasants than they had known in the past.

Inflation and Stabilization. All Hungarians suffered during 1946 from the collapse of their currency. By early April an American dollar was worth 1,000,000 pengö officially and 20,000,000 pengö on the black market. Hungarians able to obtain foreign currency enjoyed a life of luxury at fantastically low costs. Others, meaning most of the population, faced starvation as price levels and printing presses engaged in a mad race. In late June the Cabinet inaugurated a new system of wage and price controls. By mid-summer the pengo had become worthless in the culmination of a runaway inflation of astronomical proportions.

On August 5 the Government introduced a new currency based on the florint (pegged at 11.73 to the dollar) which was backed by $32,000,000 in gold, stolen by the Nazis and restored to Budapest by the American authorities in Germany. While this decision put an end to the inflationary nightmare, it led to high prices, low wages and increasing unemployment. Erstwhile speculators were impoverished, but workers and salaried employees were reduced anew to a desperation which could scarcely be alleviated without extensive foreign assistance and a restoration of productivity and international trade.

Diplomacy: Between Washington and Moscow. Hungarian efforts to salvage something from the wreckage of defeat and to find the means of a new national life were inevitably conditioned by the relations between the United States and the U.S.S.R. Along with Italy, Finland, Rumania, and Bulgaria, Hungary attained no peace treaty during 1946 because of the protracted diplomatic duel between the Soviet Union and the Atlantic Powers. Late in January the Red Army took control of the Lispe oil fields in western Hungary, including the properties owned by Standard Oil. June found Nagy in Washington, along with Vice-Premier Rakosi, Minister of Justice Stephen Riesz and Foreign Minister Janos Gyoengyoessy. But Magyar hopes of obtaining more lenient peace terms though playing off Moscow and Washington against one another were frustrated by the inescapable facts of Soviet occupation and American unwillingness to risk war in any effort to expel the Muscovites from the Danube basin.

Under these circumstances Hungary was less a subject of diplomacy than an object of American-Soviet quarrels. On March 2 the State Department protested to Moscow that Soviet reparations, requisitions and occupation costs were impoverishing Hungary and asked for concerted efforts to restore Magyar economy. On April 21 Vishinsky replied with a refusal, a general disclaimer, and a counter-accusation that American retention in Austria and Germany of Hungarian displaced property valued at $3,000,000,000 was chiefly responsible for Hungary's plight. On July 22 Ambassador Walter Bedell Smith delivered a note to Molotov, denying the Soviet allegation and itemizing the alleged burdens upon Hungary of the Soviet occupation. On July 27 Moscow dismissed these charges as "completely groundless," rejected the American figures, made further counter-accusations, and again declined to cooperate in any joint Anglo-American-Soviet plan for Hungarian rehabilitation. On September 21 the United States reiterated its position.

This debate of the titans was wholly inconclusive both as to the facts and as to responsibility for Magyar miseries. Immediate publication of the notes by both sides suggested that each was "playing to the gallery" and had no hope of an accord. Budapest derived little comfort from the spectacle, since diplomatic notes are notoriously deficient as a source either of nourishment or entertainment.

Reparations. In the protracted process of Allied peace-making with the Axis satellites, via Council of Foreign Ministers, Paris Peace Conference and Council once more, the Hungarian Government was eager to reduce, if possible, the reparations bill imposed in the armistice terms of January 20, 1945. On April 6, 1946 a new accord between Budapest and Prague, Belgrade and Moscow reiterated the original demands: $300,000,000 to be paid in kind over six years, with two-thirds going to the U.S.S.R., $70,000,000 to Jugoslavia and $30,000,000 to Czechoslovakia. The same terms were incorporated in the draft treaty with Hungary prepared by the Council of Foreign Ministers. Following the establishment of joint Hungarian-Soviet 'companies in the fields of shipping, civil aviation, oil and aluminum, and talks in Moscow between Nagy, Molotov and Stalin, the Soviet Union agreed on April 18 to extend by two years the period of Hungarian payments.

After the Washington discussions of June with Truman, Byrnes, and Acheson, Nagy received assurances that the United States would restore to Hungary various assets taken by the Nazis during the war, including the $32,000,000 gold reserve, 260 factories, 540 Danube river ships, etc. While Hungarian estimates of the value of displaced assets ran as high as $3,500,000,000, the goods actually restored amounted to little more than $100.-

000,000. At the Paris Peace Conference an American proposal that Hungary's total reparations be reduced to $200,000,000 was voted down early in October. Hungarian appeals for reconsideration were vain. The peace treaty completed in New York in December and scheduled to be signed in Paris in February, 1947, contained the original program of payments.

Frontiers. Budapest was equally unsuccessful in its efforts to modify the frontiers of the Treaty of Trianon (1919) as reaffirmed in the armistice of 1945 with its reference to the boundaries of 1937. In the Moscow negotiations of April, Molotov sympathized with guarantees of minority rights for Magyars in neighboring States, but declined to put any pressure on Bucharest, Prague or Belgrade for frontier revision on the ground that this must be settled by the Great Powers. Anglo-American support for Hungarian aspirations was insufficient to produce results. Premier Nagy told the Hungarian press on June 26 that the nation must forget the revisionist agitation of the preceding 25 years.

On September 5 Nagy left Paris in disappointment after the Rumanian Commission of the Peace Conference voted to approve the old borders as drawn in the draft treaty. Budapest was further obliged to cede to Czechoslovakia a small bridgehead south of Bratislava. The only Hungarian "victory" in the peace negotiations was purely negative. It consisted of Prague's acquiescence in the decision of the Powers that Czechoslovakia should not expel 200,000 Magyars in addition to the 100,000 to be exchanged for an equal number of Slovaks in Hungary.

Horizons of Peace. The treaty to be signed in Paris in February, 1947, was laden with the bitter fruits of Hungary's espousal of the cause of the Fascist Axis. The victorious Soviet armies of occupation would be withdrawn in its aftermath But Hungary, for better or for worse, would long remain within the Muscovite orbit, surrounded by Soviet allies. This circumstance inevitably reduced to despair all ultra-montane Catholics, all expansionist super-patriots, most members of the old elites of land and money, and many earnest liberals and democrats of all classes. But it was no source of sorrow to Hungary's workers or to its long-degraded peasantry. The ancient institutions of feudalism and monarchism, for centuries the matrix of Magyar glory and Magyar woe, were at long last gone without regret by most Hungarians The life of the days to come, for all its hardships and humiliations, might well see a new birth of freedom, dignity and well-being for the common man such as he had never known in years gone by.

See CZECHOSLOVAKIA, PARIS PEACE CONFERENCE, RUMANIA, U.S.S.R. and VATICAN CITY, YUGOSLAVIA.

FREDERICK L. SCHUMAN.

ICELAND. An island republic in the North Atlantic, situated 200 miles east of Greenland and about 540 miles northwest of Scotland. Area, 39,709 square miles only one-fourth of which is habitable. Population in 1945, 127,770. Populations of the chief towns: Reykjavik (capital), 44,281 inhabitants in 1945; Akureyri, 5,939; Hafnarfjördur, 4,050.

Government. The Constitution of May 18, 1920, (amended in 1934 and 1941) provided for a constitutional monarchy. The King of Denmark exercised executive power through a responsible Cabinet. Legislative power rested conjointly with the King and the Althing, the oldest parliament in the world, established 930 A.D. The Althing consists of 52 elected members. One third of its members are elected to the upper chamber by the whole Althing; the other two-thirds form the lower chamber.

On Apr. 10, 1940, the Althing authorized the Government temporarily to exercise the sovereign powers vested in King Christian X and to assume full charge of Iceland's foreign affairs, previously conducted by Denmark under the Act of Union. The Althing on May 16, 1941, adopted various constitutional amendments with a view to establishing an independent republic upon expiration of the Act of Union in 1943. Sveinn Björnsson, former Icelandic Minister to Denmark, was elected Regent on June 17, 1941. After the proclamation of the republic on June 17, 1944, Björnsson became President. Chosen by the Althing for a one-year term, he was reelected on June 7, 1945, for a four-year term from August 1, 1945.

Events. Icelandic affairs in 1946 were dominated completely by one issue of international importance: that of the American wartime bases on the island. This was not only a matter between the Governments of the United States and Iceland, but also an important point in the world-wide diplomatic struggle between Washington and Moscow, which marked the year.

In the early months of 1946, the issue was still beclouded by secrecy and speculation. Rumors and propagandistic statements were rife. Late in January an American news agency gave wide circulation to a report from Copenhagen that Russia had approached the Icelandic Government with a request to lease a base at Seydisford on the east coast of Iceland. On February 2, the Soviet news agency TASS formally denied the story. At the same time Russian newspapers renewed their attacks on the continued presence of American military and naval forces in Iceland.

On March 21 Secretary of Commerce, Henry A. Wallace, expressed the view that United States troops should be withdrawn from Iceland. Referring to the withdrawal of Soviet forces from the Danish island of Bornholm, he said: "The only interpretation the Russians could place on continued occupancy of bases in Iceland by American troops would be that it was aimed at them."

On April 5, the Moscow newspaper Izvestia wrote: "That American troops do not intend quitting Iceland in the near future is proved by the fact that the command of the American garrison is concluding agreements with Icelandic farmers for renting plots of land . . . in the proximity of airfields and the naval base." (New York Times, April 6, 1946). This story was promptly denied by Washington officials and also by the Icelandic Minister to the United States, Thor Thors, who pointed out that "it is contrary to Icelandic law to sell real estate" to foreigners.

The whole matter was at last brought out into the open by an official statement issued on April 26 by the Icelandic Premier Olafur Thors. The statement said that the United States, on October 1, 1945, had approached the Icelandic Government with a request for discussing a long-term lease of military bases on the island by the United States. At the same time, Mr. Thors declared, Washington had informed him that the United States emphatically would support Iceland's application for membership in the United Nations. He added that the American proposals assumed that when and if Iceland joined the United Nations, any bases acquired by the United States on the island would become available to the Security Council in fulfillment of possible Icelandic obligations under the United Nations Charter. The United States also assured Iceland that she would use the rights she might

acquire with full respect for the independence and sovereignty of the Republic of Iceland and without intervention in Iceland's affairs.

Iceland turned down these proposals, Mr. Thors disclosed. The rejection was made in a note delivered to the American Minister in Reykjavik, on November 6, 1945. In December, the United States Government consented to put aside the question for some time, Mr. Thors added. The State Department, on April 27, confirmed the foregoing in all details and reiterated its promise that "the limited military personnel still in Iceland will be withdrawn, and Meeks (Keflavik) Field turned over to the Icelandic Government," when the war officially ended with the coming into force of peace treaties.

This promise, however, did not satisfy the Icelanders, who had no way of knowing when the war would end "officially," and could do nothing to speed the conclusion of peace treaties. Nor did it satisfy the Russians, who in May launched another concerted propaganda campaign against the United States' request for bases in Iceland.

At the same time, and in apparent connection with the political pressure exerted, the Russians offered to Iceland a very favorable trade agreement, which was concluded on May 27 in Moscow. Under the terms of this treaty, the Soviet Government undertook to purchase a major portion of Iceland's fish catch and fish products at prices estimated to be 30 to 50 percent higher than those previously paid by American and British buyers. In return, Iceland would receive Russian coal and timber, with a large balance to be paid in American dollars.

The question of the American forces still stationed in Iceland was raised again when the Althing, on July 25, voted to apply for membership in the United Nations. An amendment, that would have made the application contingent upon the immediate withdrawal of the United States troops was defeated 36 to 9, after a statement by Premier Thors that negotiations to that end were about to begin.

In the midst of this confused diplomatic situation, a general election was held on June 30. The result showed little difference from the preceding election. The Progressives, the only opposition party, lost two seats to the Social-Democrats. The returns are given in the accompanying table.

ALTHING ELECTION, JUNE 30, 1946

Party	*Votes*	*Seats*
Independence Party (Conservatives)	26,428	20
Progressives	15,072	13
Communists	13,049	10
Social-Democrats	11,911	9

On September 19, the United States, in a new note to Iceland, formally proposed to withdraw all its armed forces from the country within 180 days; to transfer the airfields of the Keflavik area to the Government of Iceland; and to agree to the abrogation of the defense agreement of July 1, 1941. The note requested, however, that the Keflavik airport "continue to be available for use by aircraft operated by or on behalf of the Government of the United States in connection with the fulfillment of United States obligations to maintain control agencies in Germany." This, of course, included the use of the airfield by American military planes.

The Icelandic Government accepted these proposals over the opposition of its two Communist members. The Communist newspaper in Reykjavik saw in the proposed agreement an American bid for a camouflaged military base. On September 22, street demonstrations and rioting broke out in Reykjavik, as the Communists organized protest actions against the agreement. The Reykjavik Trade Union Council called a 24-hour general strike. Premier Thors, in an angry statement, declared that "the rule of the fist" would not be allowed to govern in Iceland; he was booed and even threatened by Communist mobs.

On October 5 the Althing, by a vote of 32 to 19, ratified the agreement, which thereby went into effect immediately. In addition to the ten Communist members, two Social-Democrats and seven Progressives opposed the agreement; all twenty Conservatives, including the Premier, six Social-Democrats, and six Progressives voted for it, with one Social-Democrat abstaining.

In further protest against the treaty, the Communists withdrew their two representatives from the six-man Cabinet, causing Premier Thors to resign on October 10. However, at the request of President Sveinn Björnsson, the Communists, the following day, agreed to continue to sit in a caretaker government until a new Cabinet could be formed.

The evacuation of American military personnel, of whom about 1,000 had remained in Iceland, began on October 23. Two days later, the Keflavik airport, which the Americans had built during the war at an estimated cost of $5,000,000, was solemnly turned over to Icelandic authorities.

In the meantime, Iceland's application for membership in the United Nations had been approved unanimously by the Security Council on August 29, and by the General Assembly on November 9.

Production. Fishing is the chief industry; it supports nearly 30 percent of the population directly and in 1942 it provided 96 percent of the value of all exports. About 36 percent of the inhabitants live by agriculture, sheep raising, and dairy farming. Potatoes, turnips, and hay are the chief crops. There are very few trees and only low grade coal deposits, but extensive peat deposits are used for fuel and many buildings in Reykjavik are heated by water from hot springs.

Foreign Trade. Imports in 1945 averaged 26,478,000 crowns a month, while exports were valued at 23,880,000 crowns monthly. Great Britain and the United States were the chief trading countries.

JOACHIM JOESTEN.

ILLUMINATION. The accumulations of the wartime years were reflected in statistics published early in 1946 which indicated that at least 120,000 electric lamps would be needed merely to fill empty sockets in American homes; that a minimum of four million new street lighting fixtures for some 50,000 miles of highways and 250,000 miles of residential streets would be needed for new and replacement traffic-safety lighting in the United States during the next ten years. The estimates of needs for street and highway lighting are based upon survey findings that most of the accidents occur on only 4 percent of some 500,000 miles of designated highways, and on some 10 percent of 300,000 miles of city streets. Automotive, safety, and illumination experts are agreed that adequate lighting of these 50,000 miles of critical streets and highways would reduce materially the accident rate with present levels of vehicle traffic, and keep it under control even with the expected total of some 40 million motor vehicles which are expected to be operating by 1950.

Representative of the progress being made in school lighting is a Cleveland installation of semi-direct luminaires mounted in continuous rows at the proper height to give shielding against direct glare, and to give brightness control, and efficient

light utilization; the working light at the desk-top level being 58 footcandles. This level of illumination, especially in a schoolroom, would be regarded as high on the basis of prewar standards, but on the basis of wartime experience which demonstrated so conclusively the reduction in eye strain and the efficiency in personal work which result from illumination levels of from 50 footcandles upward, now is considered to be practically just the threshold of good practice. Further indication of the trend toward higher levels of illumination was the installation at the famous Yankee stadium in New York City, where some 1,250 1,500-watt lamps were installed to provide an illumination level of 200 footcandles over the 3.5-acre area of the stadium. Improvements in the design of street lighting fixtures, of particular significance in suburban areas where street lights frequently annoy nearby residents, included fixtures which concentrate and guide the light in the direction of the street, a two-way guide for use along the streets, and a four-way guide for use at street intersections.

To provide a service test of adequate proportion to give some conclusive results, the Department of Health of the County of Westchester, New York State, sponsored installation of germicidal lamps in schools, churches, and other public meeting places throughout the village of Pleasantville. Records will be kept and studies will be made covering the effect of these lamps on the incidence and spread of contagious infection in Pleasantville, as compared with another nearby town which is without the germicidal lamps. Manufacturers have perfected various "ultraviolet meters" and other sampling and measuring devices to facilitate the measure of intensities of germicidal radiation. Adaptation of the ultraviolet germicidal lamp has been developed for installation in domestic refrigerators, to produce bactericidal and ozone-creating wave lengths of radiation in the controlled amounts which experiment and experience over several years have indicated to be effective for checking the growth of mold or bacteria on food, killing "ice box" odors, and generally contributing to longer preservation of food in its original state and quality.

Stimulated by the success of their use in wartime industry, fluorescent lighting applications are rapidly growing both in extent and magnitude. For domestic and commercial application, new types of fixtures have been developed to accommodate the ring- or circle-type of fluorescent tubes to floor- and table-lamps as well as for decorative use; fixtures have been developed also simplifying the application of the more slender tubular types of fluorescent lamps, particularly effective for show-case and other specialized lighting, including railway cars and other such installations.

One of the latest revelations of military developments is a "talking lamp," which gives off invisible infrared radiations which were adapted to secret two-way conversation over what is literally an "invisible searchlight" beam. The lamp itself serves as the signal transmitter. Mounted in a parabolic reflector, it picks up words spoken into a microphone and transmits the conversation along the invisible beam of infrared rays to a photo-electric-cell receiving device similarly mounted in a reflector to pick up the rays and convert and amplify them into audible signals. Source of the unseen radiation is caesium vapor, caesium being a metal which is an efficient generator of infrared radiation but which is a very poor producer of visible radiations. The sealed-beam type of lamp which has been used with such outstanding success as for headlights on motor vehicles during recent years, is finding other applications, such as spotlights for small marine craft or motor vehicles. Spotlights of this type now are available which have a half-mile range. A small mercury-vapor-arc lamp of about the diameter of a cigarette and approximately twice as long produces a light output of 60,000 lumens, which is the equivalent of three times the light output of a conventional 1,000 watt incandescent bulb which would be ten inches or more in diameter.

Among new lamps of interest to photographers is a reflector "photospot" lamp designed for both amateur and professional photography, which lamp is designed to concentrate its light output within a 20-degree beam, thus giving a lighting intensity at the center of the beam some seven times stronger than that of the reflector-type of photoflood lamp. Another photoflash lamp was added to the family of lamps having the new blue filter-coating to give correct lighting values with daylight-type color film. With a good metal reflector, the exposure guide-number for this lamp is approximately 80 for commercial daylight color films of professional type.

Among new lamps for special applications, is a further improvement in the infrared heat lamp, which now combines a built-in reflector, a hard-glass bulb, and a built-in red filter, the combination giving better and safer operation with less glare. This is a 250-watt lamp, designed to fit ordinary household outlets, and probably destined to supplant to some extent the electric heating pad for personal treatment. A new 15-watt-sized lamp has been designed to give 40-watt illumination, for use in domestic electric refrigerators. An illumination level of from fifteen to twenty footcandles has been provided in 150 or so new passenger coaches for the New York Central Railroad, through the installation of 14-watt fluorescent lamps. In Cleveland, a local transit bus has been equipped for experimental operation with 600-volt six-foot cold-cathode fluorescent lamps. For small transport aircraft, a special small tubular lamp of 5¾-inch lengths, to operate at twenty-eight volts with a rating of twenty watts, was announced. As with most equipment and application developments for 1946, hampering restrictions arising from continuing critical shortages in materiel and from unsettled labor, transport, and fuel conditions generally retarded progress during the year to subnormal levels.

G. Ross Henninger.

IMMIGRATION, EMIGRATION, AND NATURALIZATION. The immigration and nationality laws are administered by the Immigration and Naturalization Service of the United States Department of Justice.

Immigration and Emigration. During the fiscal year which ended June 30, 1946, 108,721 immigrant aliens were admitted to the United States for permanent residence. This represents a 185 percent increase over the 38,119 immigrants admitted in the previous year, and is the largest number admitted in any year since the fiscal year 1930, when 241,700 immigrants were admitted. Among the immigrants there were 2,551 displaced persons from the American occupation zones in Europe, who were admitted under the President's directive of December 22, 1945. The permissible quota for the year was 153,879, but only 18.9 percent of the quota was filled by the 29,095 quota immigrants admitted. However, this number was two and a half times as many as entered in the fiscal year 1945. A number of countries with small quotas—

Estonia, Greece, Portugal, Rumania, and Spain—practically exhausted their quotas. Of the 79,626 non-quota immigrants, 44,775 were wives of citizen members of the United States armed forces admitted under the Act of December 28, 1945, and 29,396 natives of non-quota countries, chiefly Canada and Mexico. There were 4,492 other relatives of citizens, 534 ministers, professors and their wives and children, and 429 in all other non-quota classes. The number of immigrant aliens admitted, showing the countries in which they last resided, and the number of resident aliens departing for future permanent residence abroad, are shown in Table I.

Aliens admitted for temporary stay and resident aliens returning from a brief sojourn abroad totaled 203,469. This number comprised 17,031 government officials, their employees and families; 134,826 visitors for business or pleasure; 31,124 aliens in transit through the United States; 13,306 returning resident aliens; 5,855 students; 658 members of international organizations; and 669 aliens in other classes. The resumption of tourist travel and rise in the number of returning resident aliens from abroad account in a large measure for the increase of 24 percent over the number of non-immigrants admitted last year.

TABLE I—IMMIGRANT ALIENS ADMITTED AND EMIGRANT ALIENS DEPARTED, FISCAL YEARS 1945 AND 1946, BY COUNTRIES OF LAST OR INTENDED FUTURE PERMANENT RESIDENCE

Countries	Immigrant 1945	Immigrant 1946	Emigrant 1945	Emigrant 1946
All countries	38,119	108,721	7,442	18,143
Europe	5,943	52,852	3,997	10,500
Albania	1	9		1
Belgium	71	1,718	29	411
Bulgaria	3	8		5
Czechoslovakia	64	267	3	97
Denmark	43	194	1	200
Estonia	16	9		1
Finland	29	29	8	27
France	201	5,708	242	1,192
Germany	172	2,598	2	57
Great Britain: England	2,784	30,922	2,709	3,259
Great Britain: Scotland	192	1,586	296	437
Great Britain: Wales	53	1,044	17	37
Greece	176	367	3	111
Hungary	54	49		6
Ireland (Eire)	125	526	38	308
Italy	213	2,636	8	354
Latvia	16	29	..	
Lithuania	19	14	..	1
Netherlands	50	355	13	459
Northern Ireland	302	1,290	22	65
Norway	61	248	17	983
Poland	195	335		24
Portugal	570	578	191	401
Rumania	77	19		1
Spain	156	227	78	240
Sweden	45	643	79	526
Switzerland	39	766	32	364
Union of Soviet Socialist Republics	18	72	73	575
Yugoslavia	88	65	6	93
Other Europe	110	541	130	265
Asia	442	1,633	329	1,352
China	71	252	176	785
Japan	1	14		59
Palestine	133	483	43	283
Syria	18	90	3	31
Other Asia	219	794	107	194
Canada	11,079	20,414	567	745
Newfoundland	451	910	38	122
Mexico	6,702	7,146	1,170	1,069
West Indies	5,452	5,898	123	1,384
Central America	3,423	2,338	246	327
South America	1,609	2,633	346	915
Africa	406	1,516	124	314
Australia	1,261	5,111	138	248
New Zealand	364	898	23	57
Other countries	987	7,372	341	1,110

There were 204,353 aliens who departed during the fiscal year, an increase of 118.9 percent over the 93,362 of last year. Of those who departed, 18,143 were emigrants, or persons who left a permanent residence in the United States for a stay of at least a year abroad, and 186,210 were nonemigrants, or aliens who had been in the United States for less than a year, or permanent resident aliens who were departing for less than a year.

Aliens seeking admission to the United States who do not meet the requirements for entry are excluded at the ports of entry. During the past year 2,942 aliens seeking admission for 30 days or longer and 2,708 aliens who wished to come in for less than 30 days were excluded. Of those who sought admission to remain for more than 30 days, 71.6 percent were excluded at the Canadian border, 10.6 percent at the Mexican border, and the remainder at the seaports. The Act of September 27, 1944, amended Sec. 3 of the Act of February 5, 1917, so as to exclude "persons who have departed from the jurisdiction of the United States for the purpose of evading or avoiding training or service in the armed forces of the United States during time of war or during a period declared by the President to be a national emergency." Under this provision 21 persons who sought to enter for 30 days or more, were debarred from entering the United States and 12 who sought admission for less than 30 days were excluded.

The greatest volume of travel into and out of the United States from foreign territory occurs at the Canadian and Mexican borders, where aliens and citizens frequently make daily or weekly crossings and recrossings. During the fiscal year 1946 there were 74,240,190 such entries, of which 37,085,718 were by aliens and 37,154,472 were by citizens.

Passengers arriving by air at land and by water at seaports totaled 506,139. Immigrant inspectors boarded 68,445 vessels and 54,903 planes, and in so doing examined 676,038 alien crewmen and 708,643 citizen crewmen. Alien crewmen who deserted numbered 4,365, including 1,115 British, 727 Chinese, and 485 Norwegian.

The continued manpower shortage led to further appropriations for the continuation of the importation of alien laborers from the Western Hemisphere. Recruitment, however, was terminated by the end of the year. On June 30, 1946, there remained in the United States 65,745 agricultural laborers and 3,000 railway track workers. The laborers imported for industrial war work had practically all been returned to their homelands by the end of the fiscal year.

Deportations and Voluntary Departures. An unprecedented number of illegal entrants, especially along the Mexican border, who were attracted by the labor shortage and high wages prevailing in the United States, caused a greater number of deportations and voluntary departures of deportable aliens than during any previous year on record. In all, 14,375 aliens were deported and 101,945 aliens who had been adjudged deportable were allowed to depart at their own expense without warrants of deportation. Among them were more than 11,310 Mexican nationals and 90,168 who returned voluntarily across the Mexican border. The principal causes for deportation of aliens under warrants were (a) entry without inspection or by false statements, (b) remaining longer than authorized, and (c) entry of persons who had been previously debarred and deported.

Border Patrol. The authorized border patrol officer force of 1,052 at the beginning of the fiscal year 1946 was increased at the end of May to 1,315 officers. These officers patrolled 8,330,947 miles, examined 1,094,268 conveyances, and questioned

4,112,966 persons. They seized and delivered to other appropriate law enforcement agencies 148 automobiles and trucks valued at $76,933 and recovered 11 such vehicles valued at $10,023, restoring these to the owners from whom they had been stolen. During the year border patrol officers apprehended 99,591 deportable aliens, more than in any previous year since the patrol was organized in 1924. This represents an increase of 44 percent or 30,427 aliens over last year, and but 747 aliens less than the combined totals of the two preceding years. Patrol officers also apprehended 220 alien smugglers, 84 more than in 1945, and 974 violators of other laws, a decrease of 27 percent over last year. In addition, 821 violators of the Federal Use Stamp Law were referred to the Bureau of Internal Revenue.

Aliens and Alien Registration. All aliens remaining in the United States for 29 days or longer are required to register under the provisions of the Alien Registration Act of 1940. The initial registration for aliens began on August 27, 1940, and continued through December 26, 1940. During this period 4,889,770 aliens registered as residents of continental United States. Factors determining the alien population are net immigration, naturalization, and mortality. By using the true figures for immigration and naturalizations, and estimating the alien mortality for the period, it is possible to arrive at the approximate alien population. On such a basis it is estimated that there were approximately 3,000,000 resident aliens in continental United States on June 30, 1946. This estimate does not take into account those here temporarily; that is, non-immigrants, border-crossers, and imported laborers.

Naturalization. Naturalization was granted in the United States and overseas to 150,062 persons during the fiscal year ended June 30, 1946. This is a marked decrease from the highest recorded figure of 441,979 persons naturalized in the fiscal year 1944. Of the naturalizations granted in 1946, 134,849 were to civilians. During the year, 6,575 petitions for naturalization were denied; there were 9,782 denied in the fiscal year 1945.

The Second War Powers Act, approved March 27, 1942, made available temporarily, an expeditious naturalization procedure to non-citizens serving in the armed forces of the United States. The statute provided a judicial naturalization process for persons residing within the jurisdiction of a naturalization court, and an administrative naturalization process for those serving abroad. For the fiscal year 1946, 13,159 members of the military and naval forces residing in the United States, Alaska, Hawaii, Puerto Rico, and the Virgin Islands were admitted to citizenship on the basis of petitions filed with naturalization courts. In addition, a total of 2,054 persons serving abroad with the armed forces of the United States were admitted to citizenship by designated representatives of the Immigration and Naturalization Service under the administrative process. Naturalizations were granted in the following areas: Belgium 92; England 77; France 434; Germany 447; Italy 77; other Europe 18; China 49; India 216; Australia 60; Philippine Islands 506; other Pacific 2; all other countries 76. The number of aliens naturalized during the fiscal year 1946, and the principal countries to which such persons owed allegiance, are shown in Table II.

There were 186 naturalizations judicially granted which were revoked during the year, an increase of 21 as compared with the preceding fiscal year. In 162 cases the Foreign Service of the Department of State initiated the action because naturalized citizens of this country became permanent residents of foreign countries within five years after naturalization. In 21 cases the Immigration and Naturalization Service initiated action because naturalization was fraudulently or illegally procured, and in three cases, because the persons were dishonorably discharged following naturalization under Sections 701 and 702 of the Nationality Act of 1940.

TABLE II—ALIENS NATURALIZED DURING YEAR ENDED JUNE 30, 1946, BY COUNTRIES OR REGIONS OF FORMER ALLEGIANCE

Countries or Regions of Former Allegiance	*Total Naturalized*	*Civilian*	*Military In U.S. under Sec. 701*	*Military Abroad under Sec. 702*
All countries	150,062	134,849	13,159	2,054
Austria	6,357	6,202	133	22
British Empire	31,321	27,100	3,612	609
China	599	265	287	47
Czechoslovakia	4,165	3,937	189	39
Germany	17,464	16,707	656	101
Greece	3,313	3,058	223	32
Hungary	3,385	3,299	67	19
Italy	23,099	21,940	901	198
Mexico	5,135	2,682	2,065	388
Philippine Islands	2,644	43	2,364	237
Poland	12,907	12,501	353	53
Union of Soviet Socialist Republics	7,404	7,172	201	31
Yugoslavia	2,524	2,371	136	17
Other Countries	29,745	27,572	1,912	261

Nationality may be lost involuntarily through commission of treason against the United States, or by desertion from the military or naval service of the United States in time of war, if convicted of the offense, or by departure from or remaining outside the jurisdiction of the United States in time of war or national emergency, for the purpose of evading or avoiding training and service in the armed forces of this country. Nationality may also be lost voluntarily through the performance of various acts. In the past fiscal year, 1,113 persons expatriated themselves.

Petitions for naturalization, exclusive of overseas petitions by members of the armed forces, were filed by 123,864 persons. Declarations of intention filed in the fiscal year 1946 dropped to 28,787, the lowest number recorded since 1907, which was the first year in which consolidated statistical records of naturalization were made. There were 31,195 declarations filed in the fiscal year 1945, 42,368 in 1944; and 115,664 in 1943.

New Legislation. The Act of December 29, 1945, (International Organizations Immunity Act), authorized the temporary admission of persons designated by foreign governments to serve as their representatives in or to certain international organizations; officers and employees of such organizations; and members of the immediate families of such representatives, officers and employees; and granted them the same privileges, exemptions, and immunities concerning entry into and departure from the United States—alien registration and fingerprinting, and registration of foreign agents —that are accorded officers and employees, respectively, of foreign governments, and members of their families.

The Act of April 30, 1946 (Philippine Trade Act of 1946) provided for the admission to the United States, as non-quota immigrants, of certain citizens of the Philippine Islands who had actually resided in the United States continuously for three years during the period beginning June 1, 1938, and ending November 30, 1941. These benefits also were extended under certain conditions to the

wives and unmarried children under 18 of such Philippine citizens. Application for admission under this Act must be made before July 4, 1951.

Another Act of April 30, 1946 (Philippine Rehabilitation Act of 1946) provided that until June 30, 1950, a limited number of Filipinos may be admitted to the United States temporarily, without regard to the immigration laws except laws relating to alien registration and fingerprinting, for instruction or training under the supervision and at the expense of the United States Government.

The Act of June 29, 1946, authorized the prompt admission to the United States for a period of three months of the alien financées or finances of citizens of the United States, who had served honorably or were so serving in the armed forces of the United States, during World War II. The benefits of the Act are conferred only when the alien is not subject to exclusion under the immigration laws, the applicable non-preference portion of the quota is exhausted, and the alien intends in good faith to contract a valid marriage to such American citizen. Application for such admission must be made before July 2, 1947.

The Act of July 2, 1946, provided that Filipino persons or persons of Filipino descent and persons of races indigenous to India shall have the right to become naturalized citizens; exempted certain Filipino persons or persons of Filipino descent from the naturalization requirements relating to declaration of intention and certificate of arrival; and defined the classes of persons to be chargeable to the immigration quotas of India and China

The Act of July 31, 1946, added subdivision (i) to Section 201 of the Nationality Act of 1940. The new subdivision conferred citizenship upon a child born abroad to an alien parent and a citizen parent, who had served or was serving honorably in the armed forces of the United States during World War II, if the citizen parent had previously resided in the United States for ten years, at least five of which were after attaining the age of twelve years

The Act of August 7, 1946, (amending the Act of February 27, 1925) increased the powers of officers of the Immigration and Naturalization Service to arrest certain aliens without a warrant and to search vessels, railway cars, and other conveyances.

The Act of August 7, 1946, (amending Section 323 of the Nationality Act of 1940) provided for the expeditious naturalization prior to August 7, 1947, of former citizens who had lost their citizenship by voting in a political election in a foreign state other than a state at war with the United States during the Second World War.

The Act of August 7, 1946, (amending Section 2 of the Act of December 17, 1943) granted non-quota immigration status to Chinese wives of American citizens.

Alien Enemies. Alien enemies include natives, citizens, denizens, and subjects of countries with which the United States was at war—Japan, Germany, Italy, Hungary, Rumania and Bulgaria. By authority of Presidential Proclamations of December 7 and 8, 1941, and January 14, 1942, a series of regulations was promulgated by the Department of Justice effecting the conduct of alien enemies of the Japanese, German and Italian nationality, fourteen years of age and over. (On October 19, 1942, aliens of Italian nationality were accepted from the travel regulations proscribed by the Attorney General for alien enemies generally.) The President, by proclamation dated December 12, 1945, revoked the regulation of December 7 and 8, 1941, relating to the possession of certain prohibited articles and to travel within the boundaries of the United States.

During the fiscal year 1946 the population of the civilian alien enemy internment camps increased by 4,939 including 61 persons born in the camps. The increase consisted mainly of persons from evacuation centers, previously operated by the War Relocation Authority of the Department of Interior. During the same period 10,784 persons departed from the camps—6,224 for repatriation, 280 on parole, 35 for internment at large and 4,201 pursuant to unconditional release; and there were 24 deaths. There remained 1,539 in custody at the close of the fiscal year—982 Japanese, 555 Germans, 1 Italian and 1 Hungarian. Of these, 146 (90 Japanese and 56 Germans) had voluntarily joined the interned head of the family; 891 had been apprehended in continental United States under Presidential warrants; 492 had been brought from other American Republics for internment as alien enemies deemed dangerous to the western hemisphere; and 10 who had been brought, one from Hawaii, eight from the European or South Pacific Theatres of War, and one from an enemy merchant vessel, taken into custody early in the war. Only two civilian internment facilities remained in operation at the close of the fiscal year.

Most of the Japanese who remained in internment had renounced their American citizenship and were being held for repatriation pending the action of the Federal Courts on questions concerning the legality of their forced removal from the United States under the Alien Enemy Act of 1798. Most of the Germans remaining in internment had appealed the action of the Attorney General in ordering their removals and their cases were awaiting action by the United States Supreme Court, which subsequently denied their application for a writ of certiorari on December 7, 1946.

UGO CARUSI.

INDIA. A peninsular sub-continent of Asia jutting into the Indian Ocean and separated from the rest of the continent by the Himalayas The Indian Empire, a part of the British Commonwealth and Empire, consists of British India, or the territories subject to British law, and the Indian States, ruled by native princes but under the indirect control of the British Parliament. The total area is 1,581,410 square miles (British Provinces: 865,446 square miles; Indian States and Agencies: 715,964 square miles). Capital, New Delhi. Summer seat of government (April to October), Simla.

Population. Total population (census of 1941): 388,997,955. The majority (87 percent) of the people live in rural areas. City dwellers are largely concentrated in such key places as Calcutta, Bombay, Madras, and Hyderabad. The density (about 245 per square mile) is one-third that of England and Wales (724) or Belgium (723) and less than that of Switzerland (265 per square mile).

Birth and death rates remain high, although the latter improved between the 1931 and the 1941 census. In that interval the birth rate rose from 31.3 per thousand to 34 (1939 figure) and the death rate declined from 24.9 to 22.0. The latest infant mortality rate available is high: 162 per thousand.

Although the Indian population includes more than 45 groups speaking nearly 200 different languages, classification is commonly made according to religions communities, as follows (1941): 66 percent Hindus, 24 percent Moslems, 1.6 percent Christians, 1.5 percent Sikhs, followed by Buddhists, Parsees, and others.

In 1941 the percentage of illiteracy in India was 87.8, as against 93.1 ten years before. A program of educational expansion is contemplated. There are 15 universities and numerous specialized schools, but elementary training is still imperfectly developed.

Government. The King of Great Britain and Northern Ireland bears also the title of Emperor of India. The Constitution, known as the Government of India Act, 1935, provided for an Indian federation and provincial autonomy. Provincial autonomy went into effect April 1, 1937, when elective legislative assemblies with responsible ministries were established in the 11 Governors' Provinces under direct British rule. The federation scheme was not put into force pending the framing of a new constitution.

In the meantime executive powers were concentrated in the hands of the Governor-General, or Viceroy, who is appointed by the Crown. The Governor-General also holds the separate office of Crown Representative (established April 1, 1937) through which he performs the functions of the Crown in relation to the native states. Pending the framing of a new constitution the Governor-General remains under the direction of the Secretary of State for India in the British Cabinet.

The Governor-General has been assisted by an appointive Executive Council composed of 15 high officials and by the Central Legislature of British India, established in 1921. The Legislature consisted of a Council of State of 32 elected and 26 nominated members and a Legislative Assembly of 102 elected and 39 nominated members. For the caretaker government and the interim government of 1946, see below.

Governor-General and Crown Representative, Field Marshal Viscount (Archibald P.) Wavell, was appointed 1943.

Events, 1946. The year was a critical one in Indian history, with a new form of government taking shape, to the accompaniment of apparently insoluble party conflicts and widespread communal violence with serious loss of life. The year opened with the long-established Central Legislative Assembly meeting for apparently (but not actually) the last time and ended with a coalition government installed and a Constituent (constitution-making) Assembly meeting without Moslem participation.

The unreformed Legislative Assembly began its sessions on January 21 and was addressed on January 28 by the Viceroy, who spoke of the British Government's determination to establish a new executive council made up of political leaders and to bring into existence as soon as possible a constitution-making body or convention. The Congress Party benches were empty but Mohammed Ali Jinnah and the members representing the Moslem League Party were present.

The Viceroy took the opportunity to clarify the position of the Parliamentary delegation to India which, he said, had been the subject of some "mischievous speculation." This delegation, consisting of two peers and 8 members of the British House of Commons, with labor member Robert Richards as leader, left England on January 2 for a 5-weeks' visit in India. This was a good-will tour, only semi-official, and the participants were told by Prime Minister Attlee in parting that they had complete freedom of action and were not required to make a report. The delegates traveled widely and left for home on February 10. It was the first time in many years that a parliamentary group had toured India.

The Cabinet Mission. On February 19 the British Government made known its decision to send to India a mission of quite another sort: a group of 3 cabinet ministers who would act with the Viceroy, Lord Wavell, in his coming discussions with the leaders of Indian opinion on the constitutional future of the country. The ministers were given power to negotiate with Indian leaders.

In making the announcement Prime Minister Attlee reminded the British House of Commons of the steps planned for the realization of self-government in India as outlined by the Viceroy on September 19, 1945. These included: (1) preparatory discussions with the elected representatives of British India and with the Indian states, in order to secure the widest measure of agreement on the method of framing a constitution; (2) the setting up of a constitution-making-body; and (3) the bringing into being of an executive council having the support of the main Indian parties. The provincial elections, still in progress in India, were expected to guide the mission in determining Hindu and Moslem strength in planning for the future.

The Prime Minister emphasized the point that although the purpose of the mission was to help India, it was for Indians themselves to decide their future form of government. If the decision should be for independence outside the British Commonwealth, it was the duty of the British Government to make the transition as smooth and easy as possible.

The distinguished delegation was headed by the Secretary of State for India, Lord Pethick-Lawrence. The other members were Sir Stafford Cripps, President of the Board of Trade and in 1942 leader of the unsuccessful Cripps mission to India (see YEAR BOOK for 1942, pp. 320–321) and A. V. Alexander, First Lord of the Admiralty.

Activities in India. The group, which included 10 other persons, reached New Delhi on March 24 and established offices in the Viceroy's residence. They arrived at a time when severe Hindu-Moslem rioting was going on and at a date when a Moslem League meeting in New Delhi proclaimed a new slogan: "Pakistan [independent Moslem state] or death."

The sentiments of the various parts of the Indian community were investigated extensively and at length. The mission had long interviews, sometimes repeated, with the governors of the provinces of British India: Mohandas K. Gandhi; Maulana Abul Kalam Azad, Moslem president of the Congress Party; Indian princes; Sir Tej Bahadur Sapru, author of an independent plan for the government of India; Mohammed Ali Jinnah, leader of the Moslem League; provincial premiers; Pandit Jawaharlal Nehru; Indian Christian leaders, both Protestant and Roman Catholic; representatives of the Anglo-Indians; numerous other Indian leaders and large numbers of press representatives.

On April 11 the mission announced that it would take a short recess and give an opportunity for decisive consultations between the Indian parties. On April 28 the delegation invited the Congress Party to a round-table conference in an attempt to settle their differences and open the way to India's independence.

The invitation was accepted by both parties, but the atmosphere in New Delhi was pessimistic. The Moslem League, which represented approximately 90,000,000 Moslems as against 250,000,000 Hindus centered in the Congress Party, had won 445 out of 512 Moslem seats in all the provincial legislatures of British India and, according to Moslem estimates, received at least 70 percent of all votes

cast in Moslem constituencies. The Congress Party, disinclined to make concessions to the demand for the independent state of Pakistan demanded by the Moslems, had begun to insist on the immediate formation of an interim government as an alternative to continuing the search for a negotiated agreement.

The round table met in Simla from May 5 to 12, when it closed in failure. The 7-week search of the Cabinet mission for a formula on which the Congress Party and the Moslem League could agree had failed, and the mission itself was left with the responsibility for making proposals.

The White Paper. The Cabinet mission's recommendations took the form of a statement on May 16 by the mission and the Viceroy, issued simultaneously in New Delhi to the Indian people and in London as a government White Paper. Saying that they had done their utmost to bring the two main political parties to an agreement and had failed, they recommended that the constitution should take the following basic form:

(1) There should be a Union of India, embracing both British India and the states, which should deal with the following subjects foreign affairs, defense and communications, and should have the powers necessary to raise the finances for the above subjects.
(2) The Union should have an executive and a legislature constituted from British Indian and states representatives Any question raising a major communal issue in the legislature should require for its decision a majority of the representatives present and voting of each of the two major communities as well as a majority of all members present and voting
(3) All subjects other than the Union subjects and all residuary powers should vest in the provinces
(4) The states will retain all subjects and powers other than those ceded to the Union
(5) Provinces should be free to form groups with executives and legislatures, and each group could determine the provincial subjects to be taken in common
(6) The constitutions of the Union and of the groups should contain a provision whereby any province could by a majority vote of its legislative assembly call for a reconsideration of the terms of the constitution after an initial period of 10 years and at 10-yearly periods thereafter.

Thus the Cabinet mission rejected the Moslem demand for an independent state of Pakistan and at the same time proposed by recommending provincial groupings to protect the Moslems from perpetual political subordination to the Hindu majority. The mission recommended the immediate setting up of an interim government to administer India until a constitution could be devised, and urged the provincial legislatures to proceed at once to elect representatives so that constitution-making could proceed.

Warning and Good Wishes. The concluding section of the White Paper said that the mission saw small hope of peaceful settlement by Indian parties alone. It spoke of the grave danger of violence, chaos, and even civil war, with the consequent "terrible disaster for many millions of men, women and children." It urged instead the acceptance of the proposals.

Finally, the mission expressed the hope that the new self-governing India would choose to be a member of the British Commonwealth. Whatever the choice, the members looked forward to India's "ever-increasing prosperity among the greatest nations of the world."

Indian Parties' Indecision. Even after this major effort on the part of the British Government to push India into constitutional self-government, each of the major Indian parties, Hindu and Moslem, was so undecided about its policy and so quick to reverse a decision if it happened to coincide with that of the opposing party, that the record of the rest of the year would have been comedy if it had not been concerned with millions of people and with communities torn by rioting and bloodshed.

On June 6 the Moslem League accepted the mission's long-term plan and the plan for an interim government, but reversed the decision on July 29. On June 14 the Congress Party rejected both aspects of the plan. On June 25 the Congress Party altered its opinion on the long-term plan but reiterated its objection to the interim government. On the same date the Moslem League, which had not yet changed its mind about its June 6 decision, sent a letter to the Viceroy approving both aspects of the plan. On July 7 the Congress Party again approved the long-term plan, and the Moslem rejection was not long in following.

In the meantime Viceroy Wavell on June 16 invited 5 Moslems, 5 Hindus, an Untouchable, a Parsi, an Indian Christian, and a Sikh, all important representatives of their groups, to form a new executive council or cabinet. The move was described as an expedient to solve the existing difficulty only. The Congress Party, the Sikhs, and the Anglo-Indians refused to cooperate, but the Moslem League assented to the proposal.

The Viceroy then set up a caretaker government of 9 members, including 2 field marshals and 7 civil servants, 5 British and 2 Indian, the composition of which was announced on June 29. Portfolios were telescoped so that the temporary nature of the regime might be emphasized while the Viceroy continued to strive for a coalition interim government.

New Executive Council. Once more the *impasse* was broken on the initiative of the Viceroy, who on August 12 invited Pandit Jawaharlal Nehru, successor to Maulana Abul Kalam Azad, as leader of the Congress Party to make proposals for the immediate formation of an interim government. On August 24 the King accepted the resignations of the Governor General's executive council and approved the appointment of a government, proposed by the Congress Party, of 12 members, 3 of them Moslems. It was expected that 2 more Moslems, bringing the cabinet to 14, would be appointed later.

The vice-president or chief minister of the group appointed was Nehru, and the Congress Party was further represented by four outstanding members. There was one representative each of the Sikhs, Scheduled Castes (Untouchables), Indian Christians, and Parsis. The 3 Moslems were not representative of Moslem opinion in the country, and one of them was in the Congress camp. Five hours after the announcement of the new cabinet, Lord Wavell broadcast over the All-India radio an appeal to the Moslem League to reconsider its negative policy.

The oath of office was administered to 7 members of the new government on September 2 and on September 4 the members held their first meeting. On October 13 it became known in India that the Moslem League had decided to join the interim government with its full quota of 5 members. On October 25 the Moslems took their places and were assigned their portfolios. The cabinet took its appointed part in the opening of the autumn session of the Central Legislative Assembly on October 28, although Hindu-Moslem rioting was going on outside and tear-gas fumes drifted into the Council House.

The London Talks. As the time drew near for the meeting of the Constituent Assembly (constitution-making body) on December 9, the abstention of the Moslem League was regarded as ominous. The results of the elections had given Congress

201 seats, Moslems 73, scheduled castes 25, and Indian Christians 7. The Indian states had 93 places.

Civil strife persisted in many places in India. Both Hindus and Moslems were alarmed and Nehru on November 21 ascribed the strife to an intrigue between the Moslems and the British. Jinnah saw in the calling of the Constituent Assembly a plot directed against the Moslems by the British Viceroy, who in Jinnah's opinion had become a tool of the Congress Party.

In an attempt to break the increasing tension the British Government on November 26 summoned Wavell to London and invited also representatives of Hindus, Moslems, and Sikhs. Immediately the Moslem League accepted and Congress and the Sikhs refused. Then the latter two accepted and Jinnah threatened to pull out. Finally Prime Minister Attlee persuaded them all to come at once, and Wavell, Nehru, Jinnah, and Sardar Baldev Singh, leader of the Sikh party, had talks in London from December 3 to 6, with the participation of Prime Minister Attlee and some of his ministers.

The talks ended in failure. The British Government's statement of December 6 indicated that His Majesty's Government would not force on India a constitution drawn up without the participation of the Moslems.

The Constituent Assembly. The Moslems' seats were empty when the Constituent Assembly opened its sessions on December 9. On December 13 Nehru moved a resolution to declare India an independent sovereign republic, but soon thereafter spokesmen for moderation, including Dr. B. R. Ambedkar, leader of the Untouchables, pleaded for the postponement of such resolutions until the Moslems agreed to participate.

On December 23 the Constituent Assembly recessed until January 20, 1947. The vote on the sovereignty resolution proposed by Nehru was delayed and in the interval Nehru consulted Gandhi in East Bengal.

Communal Disorders. Civil disturbances in India were frequent throughout the year. Rioting took place in Bombay in January and continued for many weeks. It appeared to arise from various causes, including partizanship for the officers of the Japanese-created "Indian National Army" who were under trial, mutiny by the Indian Navy, Hindu-Moslem election clashes, and general mob looting. Madras had strikes and riots in late February and there were heavy casualties in Calcutta in the same month. The Delhi town hall was burned in March.

In June Bombay rioting took the form of clashes between Untouchables and caste Hindus. In other sections general rioting broke out after Nehru was arrested on June 20 for entering the state of Kashmir against the decree of a district magistrate, although Nehru was promptly released.

Ninety persons were reported killed on August 16 in Calcutta, in an outbreak of violence between Hindus and Moslems during the Moslem League's "Direct Action Day" demonstrating against the British plan for Indian independence and the Congress Party's interpretation of it. By August 19 Calcutta's dead were reported as 2,000, and by August 21 as 4,000. A Moslem member of the new interim government, Sir Shafaat Ahmed Khan, was stabbed in Simla after his appointment. At the same time Delhi, Allahabad, and Amritsar saw strife between the religious communities.

Riots flared again in Bombay in the first days of September, with Hindus and Moslems fighting one another. In the meantime the Government of Bengal, in which Calcutta lies, appointed a judicial commission with wide power to investigate the riots of August 16–20. Disorder on an alarming scale continued in the province through October.

Pandit Nehru was repeatedly fired upon as he made a trip near the northwest frontier in October and finally, on October 21, was slightly injured. Rioters threw stones at a railway car carrying Gandhi at a station near Delhi, but he was not injured.

At the beginning of November two Hindu and two Moslem leaders of the Indian interim government visited Calcutta to investigate the communal disorders which had continued to sweep Bengal since August 16. By this time Bihar, the United Provinces, and Assam were affected. Gandhi, who had been touring Bengal, threatened to fast until death unless peace was restored in Bihar. The Viceroy visited Bihar early in November, when it was estimated that probably 1,000 had already been killed there in religious disturbances.

The Food Problem. It was apparent at the end of January that as a result of crop shortages and inadequate imports large portions of India were in danger of famine. The Legislative Assembly, meeting at New Delhi at the time, was told by Indian food officials that 2,000,000 tons from abroad would be needed. The Viceroy traveled hundreds of miles through the stricken areas early in February, and the government invited the Congress Party and the Moslem League to put India's case before the Combined Food Board in Washington. The Moslem League accepted but the Congress Party declined for political reasons.

An Indian delegation headed by Sir Ramaswami Mudaliar reached London on February 12 and subsequently proceeded to Washington. The Viceroy, broadcasting to the Indian people on February 16, called for a reduction in rations and for as much self-help as possible. By this time the deficit was estimated at 3,000,000 tons or more for the year. Food riots played a part in the general rioting in March.

Again on March 13 the Congress Party turned down the Viceroy's proposal to set up a food committee, because of their preference not to compromise their political program. Although the Indian food mission to the United States was critical of unwillingness of the American officials to grant India's demand, the Government of India reported in September that 1,128,460 tons of food were received from abroad in the first 7 months of 1946, and that ships had been diverted from Norway and Switzerland to carry Indian supplies.

International Relations. Representatives of India were active in the sessions of the General Assembly of the United Nations in New York in censoring South Africa because of the latter's handling of the Indian minority question (see SOUTH AFRICA, UNION OF). India itself took the long-threatened step of prohibiting trade with South Africa. Notifications dated July 17, 1946, prohibited imports from South Africa and exports to any port or place in that country.

India's adherence to the International Monetary Fund and the International Bank for Reconstruction and Development in December, 1945, in order to qualify as an original member, came under attack at the meeting of the Central Legislative Assembly at the beginning of 1946. Sir Archibald Rowlands, the then Finance Member, acknowledged that in seeking that advantage he had broken a pledge to seek prior approval from the Assembly.

The Congress Party recorded its disapproval of

the Government's action, but sentiment altered in the course of the year, as it became plain that Soviet Russia would not soon be a member of the Bretton Woods institutions and that India would therefore be one of the "big five." In the autumn the vote to adhere was carried unanimously in the Legislative Assembly, but only after criticism of the Anglo-American loan terms was heard.

In the course of the war India became Britain's largest creditor within the sterling area, and Indian opinion has been strong against the scaling down of such loans as was encouraged by the terms of the American loan to Britain. It was announced from London on December 23 that in mid-January, 1946, a British Treasury delegation headed by Sir Wilfred Eady and including William Cobbold, deputy governor of the Bank of England, would go to India to undertake the delicate negotiations for the disposition of Britain's $5,200,000,000 indebtedness to India.

In May the United States and India cancelled their lend-lease and reverse lend-lease obligations without a dollar settlement. The Government of India announced on December 6 the appointment of Asaf Ali, a Congress Party Moslem and Member for Transport in the Executive Council, as India's first ambassador to the United States.

Agriculture. Holdings are subdivided beyond the economic limit. Irrigation is extensive. Rice occupies 35 percent of the cultivated area, followed by wheat and millets in northern and dry areas respectively. India is the world's largest producer of cane sugar and the second in tea and cotton. Maize, jute, pulse, vegetable oils, and hemp are also produced in quantity.

Mining and Industry. India ranks eighth among world producers of coal and second among manganese producers. Iron and steel, and textiles are the most important industries. The works at Jamshedpur are the largest single steel works in the British Commonwealth. Cotton textiles, the largest users of factory labor, now supply almost all of India's domestic needs Small-scale and cottage industries still play an important part in the economic life of India. More than 20 percent of the cotton piece goods produced in India are made on hand looms.

Foreign trade. Foreign trade increased in the course of the war and an export balance was maintained. United States trade with India showed a marked increase. Indian imports from the United States rose from a prewar average of $35,000,000 to $777,000,000 in 1944, and exports to the United States grew at the same time from $75,000,000 to $145,000,000.

India emerged from the war a creditor nation. She reduced her prewar sterling debt to a negligible sum and became Great Britain's creditor for more than 5,000,000,000 dollars.

ALZADA COMSTOCK.

INDIAN AFFAIRS, Bureau of: The Bureau of Indian Affairs in the Department of the Interior, acts as the administrative agency in carrying out the provisions of treaties and agreements made with the Indian tribes, and statutes enacted by the Congress. It has jurisdiction over approximately 57,000,000 acres of Indian trust lands which are scattered from Point Barrow, Alaska, north of the Arctic Circle, to the Seminole reservation in the Florida Everglades. These lands vary in size from individual units of a few acres to the Navajo reservation in Arizona, New Mexico, and Utah, which is larger than the State of West Virginia. In many of these areas this bureau, often termed the Indian Service, must provide almost all of the services which non-Indian citizens receive from the Federal, State, and local governments. Administration functions through a central office in Chicago, Illinois, a liaison office in Washington, D.C., and the field service, consisting of five district offices, 64 agencies, 10 non-reservation boarding schools, and five detached sanatoriums. Each agency is headed by a superintendent, with a staff of specialists in education, health, welfare, extension, irrigation, forestry, and construction.

Reorganization of the Service in the field was achieved in 1946 to expedite and improve administration. The five district offices were set up, each district comprising a number of agencies in several states. Headquarters are at Minneapolis, Minnesota; Billings, Montana; Portland, Oregon; Phoenix, Arizona; and Oklahoma City, Oklahoma. Under new Federal legislation, Secretary of the Interior J. A. Krug delegated to William A. Brophy, Commissioner of Indian Affairs, authority to deal with many matters previously requiring Secretarial approval. Commissioner Brophy in turn delegated much of this authority to district directors and agency superintendents in order to simplify the administrative process.

During 1946, also, the budget structure of the Indian Office was simplified and consolidated, with the approval of Congress.

As of January 1, 1946, Indians under the jurisdiction of the Bureau of Indian Affairs numbered approximately 398,000 in the continental United States, with an additional 33,000 natives—Indians, Eskimos, and Aleuts—in Alaska. They belong to some 200 different tribes and speak at least 55 distinct languages; their customs and ways of life are varied In general they are a rural people, depending upon livestock, agriculture, timber, and wage work as their principal sources of income.

Indians' War Record. During the war, more than 25,000 Indian men and women served in the armed forces, and 40,000 took jobs in war industries. Indians won almost every decoration for valor, including two awards of the Medal of Honor. One of the six men who raised the flag on the summit of Mt. Suribachi was a full-blood Pima. The Marine Corps used 400 Navajos as code talkers, to transmit messages in their native tongue with no fear that the enemy might understand it.

At home the older men, women, and children increased their production of food in spite of the lack of help. Indian income increased because of servicemen's allotments, good wages in war work, and a steady market for agricultural products. Aware of the world's need for food, the governors of nine New Mexico pueblos wrote to UNRRA in the spring of 1946, offering to share their scanty store of grain with hungry people overseas. A contribution of $40 for the purchase of food was sent in by the Eskimo village of Noorvik, Alaska, where hunger is not unknown.

Navajo Problem. With the end of the war and the return of Indian veterans and war workers to their homes, family incomes dropped. Problems whose solution necessarily had to be postponed during the war years, now became pressing. Chief among these was the Navajo problem. This tribe of 55,000 Indians occupies about 25,000 square miles of arid and semi-arid grazing land. Their land, under existing practices, will support only 35,000 Indians on a subsistence level of $350 annual income per family. During the war years the Navajos had a large additional income from war wages and servicemen's family allotments. In 1946 these sources almost dried up, and the specter of hard-

ship once more appeared on the reservation. Studies made during the year indicated that water could be developed for the irrigation of 130,000 acres of Navajo land. Though the estimated cost per acre is high, irrigation promises to supply a reasonable livelihood for about 4,500 Navajo families. In addition to education which will enable the Navajos to compete for off-reservation employment, full development of their natural resources is essential to bring their income to a decent subsistence level.

The Navajos pressed their demand for adequate schools, citing the treaty of 1868, under which the United States promised to supply a teacher for each 30 children. Present facilities accommodate only one-third of the 20,000 Navajo children of school age. Some of the reservation day schools had to be closed during the war for lack of teachers. School bus service to collect the children was curtailed because tires were not available and roads could not be kept in repair. The difficulty of getting the children to school is increased by the Navajos' custom of following the sheep from winter to summer pasture. Navajos do not live in villages, and the school population of any district is variable.

As a first measure of relief, room was made during the fall term at Sherman Indian Institute at Riverside, California; Chilocco School, Chilocco, Oklahoma; and Albuquerque Boarding School, Albuquerque, New Mexico; for several hundred Navajo students. For those who had never been in school and did not speak English, an intensive course was designed to provide primary and high school education in five years at Sherman Institute.

Indian Veterans. Indian veterans began in 1946 to provide effective leadership in many places. On the Cherokee reservation, North Carolina, members of their American Legion Post campaigned for and won the right to vote in the November elections, a right denied Indians of that reservation for a score of years. In New Mexico, suit was brought against registration officials who denied Indians the right to register. All Indians born in the United States, or naturalized, are citizens. New Mexico and Arizona still refuse them the ballot.

Indian veterans were urged by the Indian Service, in cooperation with the Veterans Administration, to take advantage of the benefits available to them under the G. I. Bill of Rights and Public Law 16. Many decided to continue their education, some in non-Indian schools and colleges, others in Indian boarding schools which offered commercial and agricultural courses as well as academic work. A number applied for on-the-job training. On the Cherokee reservation 60 veterans began developing small farms under the guidance of agricultural experts. Each veteran, with his instructor's aid, worked out a three-to-five-year plan for his land, using modern conservation methods. Training included on-the-ground instruction each week, as well as book study. On the Menominee Reservation, Wisconsin, 50 veterans started on-the-job training in the tribal sawmill.

The law makes no distinction between Indian and non-Indian veterans, but Indians owning trust property found some difficulty in obtaining loans through commercial channels because trust land may not be assigned as security. In order to assist these veterans, the Indian Service made it possible for lenders to enter on Indian lands in case of default, and to repossess cattle or other movable property. Indian borrowers were urged to apply to the regular lending organizations, but if these refused, many of the tribes arranged loans to veterans from tribal funds. A number of veterans went into livestock raising. In the Southwest some started small stores for the sale of silverwork and other Indian crafts.

The Land. After the passage of the Allotment Act in 1887, which divided reservation lands into individual holdings for each member of the tribe and then declared the remaining areas surplus, the process of inheritance reduced many of these holdings to unmanageable fractions. The Indian Reorganization Act (1934) made it possible for individuals to exchange small, scattered parcels of land for usable acreage, or to deed land to the tribe in exchange for shares in a tribal enterprise, or for a life assignment in other land. Consolidation of individual and tribal property continued in 1946, and methods of proper land use were worked out for many areas.

As a measure for improving the range and combating erosion, thousands of acres in the Southwest were reseeded by airplane. Seeds of various grasses were enclosed in clay pellets which also contained a small amount of fertilizer and chemicals to repel insects and rodents. The pellets were scattered over the ground evenly by a mechanical device in the plane. Results are being watched.

Health Service. The health service still suffered from a severe shortage of doctors, nurses, and other personnel, although some of those who had gone into the armed forces returned to their jobs during the year. Indian cooperation in health measures increased. In many communities tribal health councils were set up by the Indians in order to promote understanding of health practices and to increase their acceptance. A tribal judge on the Pine Ridge reservation, South Dakota, sent a tuberculous Sioux convicted of burglary to a sanatorium rather than to the jail, emphasizing the community responsibility for health protection.

In Alaska, where the incidence of tuberculosis among the natives is very high, plans were approved for the construction of additional hospital and sanatorium facilities. During the summer, the naval base at Sitka was turned over to the Department of the Interior by the Navy for the benefit of the natives. These installations on Japonski Island will be developed into a 200-bed tuberculosis sanatorium and a boarding school for 600 Indian, Aleut, and Eskimo children.

Moving Homes. Natives evacuated from the Aleutian Islands to the mainland when the Japanese invaded Attu returned and rebuilt their ruined villages, with the help of the Indian Service. The natives of Attu, reduced by three years' imprisonment in Japan to half their original number, decided to establish themselves on the island of Atka, where many had friends and relatives.

The tribes of the Fort Berthold reservation, North Dakota—Gros Ventres, Arikaras, and Mandans—were faced with the necessity of moving their homes when the War Department's Garrison dam project for flood control on the Missouri River was approved by Congress. The lake created by the dam will flood the heart of the Indian lands. Recognizing the plight of the Indians, Congress directed that lands "comparable in quality and sufficient in area" must be offered to the Fort Berthold Indians as compensation for the lands to be flooded, before construction of the dam could begin. The War Department offered them approximately 160,000 acres of substitute lands, an offer protested by both the non-Indian landowners and the Indians.

Indian Claims Commission. In August, 1946, legislation was approved creating the Indian Claims Commission, whose task it is to hear and decide

claims against the United States brought by Indian tribes, groups, or bands. A law passed in 1863 barred Indians from suing in the Court of Claims without a special act of Congress. Because the process of obtaining such an act was long and complicated, many claims never reached the Court. Now all claims originating before August 13, 1946, are to be considered by the three-man commission if presented within five years, and decisions must be handed down within ten years of the date when the commission was established. Claims arising after August 13, 1946, may be presented to the Court of Claims.

The Federal courts upheld the claim of the Quileute Indians, Washington, that the streambed of the Quileute River formed a part of their reservation, and that they were entitled to their traditional fishing rights in it and in nearby tidelands.

On November 25 the Supreme Court upheld a decision of the Court of Claims in favor of the Alcea band of Tillamook Indians, Oregon, ruling that the Indians should be compensated for lands surrendered to the United States in 1855 under a treaty which the Senate failed to ratify. Chief Justice Vinson, writing the majority opinion, stated that: "Taking original Indian title without compensation and without consent does not satisfy the 'high standards for fair dealing' required of the United States in controlling Indian affairs."

INDO-CHINA. The southeastern peninsula of Asia, consisting of Burma, Federated Malay States, French Indo-China, Siam, Straits Settlements, the Unfederated Malay States, and the Viet Nam Republic.

INLAND WATERWAYS CORPORATION. A Division of the U.S. Department of Commerce (formerly of the War Department) incorporated to carry out sections of the Transportation Act of 1920, to make possible the coordination of rail and water transportation in the United States. It is organized along the lines of a trunk-line railroad and functions entirely on funds derived from operations. It operates barge lines on several important water routes. Chairman of the Board: South Trimble, Jr.

INSECT PESTS AND PLANT QUARANTINES. Extensive experimentation has been carried on to determine the usefulness of new insecticidal materials that show promise for the control of agricultural pests, as well as those affecting the health of man and animals, those injurious to stored products, and in the home. Advancements have been made in methods and equipment for applying insecticides and fumigants. Many of the developments resulting from research have been applied to large-scale insect control projects carried on in cooperation with State and other agencies. Some have also aided in simplifying and improving methods, used in certifying materials and products that require treatment, in order to move under plant quarantine regulations. The constant increase of air transportation continues to create problems in protecting the country from importations of new insect pests and plant diseases and in preventing the spread of those already established in limited areas.

Foreign Plant Quarantines. The discontinuance of wartime restrictions on shipping and the resumption of world commerce materially affected foreign plant quarantine enforcement at maritime ports. Improved procedures for obtaining advance information on expected arrivals have been adopted, thus making possible a more effective utilization of personnel. Inspection of 47,299 ships during the fiscal year ended June 30, 1946 represents an increase of 33 percent over the previous 12-month period. Inspection of 58,631 airplanes at 45 ports of entry represents an increase of 28 percent. Prohibited plant material was taken from 12,156 airplanes, representing an increase of 66 percent over the previous fiscal year, while the number of arrivals increased only 28 percent. A total of 3,368 interceptions of insects and plant diseases was made from airplanes. Many of these pests, including mosquitoes, were stowaways that might menace public health, and plant pests of economic importance were found in plant material. This emphasizes the growing importance of the airplane as a rapid disseminator of pests between countries and even continents. More than 9,000 freight cars were fumigated as a condition of entry from Mexico. A total of 5,789,244 other vehicles and 1,282,566 pieces of baggage was examined upon arrival from Mexico, in cooperation with United States Customs, representing increases of 22 and 38 percent, respectively over inspections made during the previous fiscal year. Greatly expanded air traffic and a revival in shipment of fruits and vegetables from Puerto Rico to the mainland also had a marked effect on plant quarantine activities.

Further Developments of New Insecticides and Methods of Application. Extensive experimentation has been continued to determine practical and safe uses of various formulations containing DDT. Except against household insects and direct pests of man and animals, such as flies and mosquitoes, few definite recommendations for its use have yet been made. Further tests with benzene hexachloride disclose that it has shown special promise for use against cotton insects and encouraging results against some other insects.

Marked progress has been made in the development of mist blowers for applying concentrated sprays from the ground. Many practical tests of the dispersion of sprays from aircraft have also been undertaken, involving the use of various types of equipment, spray formulas, and dosages against insect pests of cotton, forests, and field crops.

Cooperative work on the use of aerosols in the control of insects on vegetable crops was continued DDT was used with various solvents and propellents. Mixtures that do not injure plants were developed for field and greenhouse use, and apparatus for applying such aerosols were tested against thrips, aphids, and leafhoppers.

Insect Repellents. Screening tests of more than 7,500 chemicals as mosquito repellents for skin applications were completed during the year, and eight chemicals have been found to give over five hours' protection against the bites of yellow-fever mosquitoes. These materials are now being tested for their toxicity to man before they are recommended for use.

Screwworms and Other Livestock Pests. The screwworm survey, which has served well to determine the needs of critical ingredients for Smear 62 and to acquaint the livestock industry with the superiority of this remedy for the control of screwworms, was continued. With the cooperation of State personnel, Smear 62 has been introduced in all the affected States, and livestock owners have saved many valuable animals, and prevented many local outbreaks and further spread of the screwworm. Research has been continued to develop formulas containing substitutes for diphenylamine and turkey red oil.

Water suspensions containing DDT were found to be more desirable than solutions and emulsions in spraying dairy barns for the control of houseflies.

The suspensions, when applied to animals, have also been found effective against horn flies. DDT and benzene hexachloride have shown more promise than any materials heretofore used for the control of all species of cattle lice. Both materials appear to be capable of eradicating cattle lice with one treatment, which has not been possible with the older remedies.

Codling Moth. DDT has continued to give outstanding control of the codling moth wherever tested. A 50-percent wettable powder containing DDT appears to be the most practical spray formulation for this purpose. Because of the mite problem resulting from the use of this insecticide in apple orchards, and uncertainties about the status of residues, DDT has not been given unqualified recommendation for codling moth control despite its effectiveness.

Japanese Beetle. The program for distributing the milky disease of Japanese beetle grubs was continued in cooperation with State agencies in nine States and the Army Service Forces in the First, Second, and Third Service Commands. Authority was granted on March 21, 1946 for the use of DDT for treating soil in nursery plots and potting soil as a means of obtaining certification for movement under Japanese beetle quarantine regulations of plants grown in such soil. Ethylene dibromide has been found generally to be much more effective than ethylene dichloride in various formulations as dips for eggs, larvae, and pupae of the Japanese beetle in soil masses and plant balls, and for surface applications to soil plots containing larvae and pupae. However, more information on plant tolerance is needed before this material can be generally recommended for quarantine treatments.

European Corn Borer. This insect spread into relatively little new territory in 1945. However, populations were higher than during 1944 over the greater portion of the Corn Belt and losses due to the borer totaled about $37,000,000 in 1945. This insect has been controlled experimentally with from two to four applications of DDT sprays or dusts, distributed with either ground or airplane equipment.

Grasshoppers. Weather during the early spring of 1946 was favorable to early hatching and rapid development. In May, however, unfavorable weather retarded hatching and development over the Northern Great Plains, but infestations increased rapidly in June. Cooperative control operations were conducted in twenty-three Central, Midwestern, and Western States, affording protection to 5,580,000 acres of crops worth more than $29,550,000.

Stored-Grain Insects. In tests of new grain fumigants, ethylene dibromide in various combinations with carbon tetrachloride, ethylene dichloride, and carbon disulfide gave good protection from insect infestation to wheat stored in steel bins and wooden farm granaries. A mixture of acrylonitrile and carbon tetrachloride gave excellent results in wheat stored in wooden farm granaries, and mixtures of several nitriles in carbon tetrachloride gave excellent control of insects in wheat stored in steel bins. DDT applied as a solution, an oil emulsion, or a water suspension was found to be the most effective material for treating interior walls of wooden farm granaries to reduce insect infestations.

White-fringed Beetle. By the end of 1945 this insect was known to occur on a total of 153,000 acres in Alabama, Florida, Louisiana, Mississippi, and North Carolina. During 1946, white-fringed beetle infestations were found in forty-one Georgia counties, mainly across the central part of the *State and at a small heel yard at Columbia, South Carolina. Quarantine and control measures designed* to prevent further spread from infested States included supervision of more than 260,000 shipments of nursery, farm, mill, and timber products, also soil, implements, and numerous other materials. Equipment has been devised to increase the efficiency and reduce costs of insecticide applications at critical points to keep down beetle populations and so also reduce the spread hazard. Treatment of soil with DDT has shown promise of becoming a practical means of controlling this insect. In preliminary tests, benzene hexachloride has been very effective against eggs, larvae, and adults of this pest.

Vegetable Insects. In cooperative experiments with the Maine Agricultural Experiment Station, the addition of DDT to fungicide dusts and sprays applied to potato plots appeared to have no visible adverse effect upon the plants, controlled infestations of the Colorado potato beetle and potato flea beetles, substantially reduced infestations of aphids, and appreciably increased yields of potatoes. In large-scale field tests, conducted in cooperation with the Agricultural Experiment Station of the University of Maryland, DDT applied as an aerosol gave satisfactory control of the pea aphid and resulted in substantial increases in yield of peas The DDT aerosol also gave outstanding control of the onion thrips on cucumbers in commercial greenhouses, being more effective than any methods formerly employed. Encouraging preliminary results were obtained in tests with benzene hexachloride against the Mexican bean beetle.

Cotton Insects. The boll weevil caused more damage in 1946 than during 1945. Further tests with benzene hexachloride showed that high concentrations killed the boll weevil more quickly than did calcium arsenate, and it also killed more cotton leafworms, plant bugs, cotton flea hoppers, and cotton aphids than the standard insecticides. It is the first insecticide ever found that gives promise of destroying the boll weevil, cotton aphid and other sucking insect pests of cotton at the same time. Initial infestations of pink bollworm were found in 1945 in Brown and Medina Counties, Texas, and reinfestations in Chambers, Harris, and Liberty Counties after more than 20 years' freedom. A program was inaugurated in June 1946 to control this insect by applying DDT to the most heavily infested areas of the lower Rio Grande Valley of Texas and Mexico.

Gypsy Moth and Other Forest Insects. Preliminary results of large-scale application of DDT by aircraft, a new type of blower apparatus, and knapsack sprayers indicate complete control of the gypsy moth in areas treated by aircraft and blowers, and from drastic reduction to complete control where knapsack sprayers were used. More than 125 square miles of infested territory in Pennsylvania, eastern New York, and western New England were sprayed as part of the control program. A major revision of the area regulated because of gypsy moth became effective on October 10, 1945, adding 9,100 square miles to the area. Results of large-scale tests conducted in 1945 to determine what effect the widespread use of DDT over forested areas would have on beneficial insects, fish, and wildlife show that where only 1 pound of DDT per acre was applied there was no apparent effect on the bird populations, generally only slight injury to fish and other aquatic life, and only a temporary reduction in the general insect population.

In the spring of 1946 several large test plots

were sprayed with DDT from an airplane for control of the white pine weevil, in cooperation with the New York State Department of Conservation. Preliminary observations indicate that reasonable control was obtained. The spruce budworm infestations covering several hundred thousand acres in Colorado suddenly decreased during 1945. A study of the entomophagous parasites showed a very high population of a number of species, but conclusions regarding the total contribution of parasites to the decline cannot be drawn until other control factors are studied.

Bee Culture. An antibiotic associated with spores of *Bacillus larvae,* the causative organism of American foulbrood, has been found effective in laboratory cultures against various organisms, including those causing undulant fever, and human and bovine tuberculosis. The first preparations of this antibiotic, however, were exceedingly toxic to test animals. Methods for lowering this toxicity have been developed but, as yet, not to the point where the antibiotic may be safely administered to animals other than mice. A milk test for American foulbrood, based on the production by *B. larvae* of an enzyme that hydrolyzes milk, has been simplified so that it can be used in the field. Extensive observations have indicated that DDT, when properly applied for insect control, appears not to have lasting effect on honeybee colonies in or near fields treated with this insecticide. Benzene hexachloride proved exceedingly toxic to bees under laboratory conditions.

Foreign Parasite Introduction. Importations of parasites of the vegetable weevil, the cotton boll weevil, armyworm, and the sugarcane borer were continued. The importation from Australia of insect enemies of the Klamath weed was continued and feeding tests were made on a series of crop plants. Completed tests showed no feeding or reproduction by the imported leaffeeders *Chrysolina hyperici* Foerst. and *C. gemellata* Rossi. The first releases of *C. hyperici* were made in northern California early in 1945 and releases of both species, totaling 19,000 adults, were made late in the summer of that year and in the spring of 1946.

Dutch Elm Disease. There was some extension of the known limits of infection. Spread into Vermont and Kentucky constituted first records for these States. The finding of this disease in Ohio and West Virginia territory already invaded by phloem necrosis has further complicated enforcement of the quarantine. In small-scale tests bark beetles that transmit the Dutch elm disease fungus and sucking insects that may transmit the virus causing the phloem necrosis disease of elm were controlled by the use of DDT.

White Pine Blister Rust. There was some extension of the disease in northern California and in the North Central region during 1945. Nearly 19,000,000 ribes bushes were removed that year from 1,018,862 acres, of which 420,628 acres were initial eradication and 598,254 acres were rework.

P. N. ANNAND.

INSURANCE. The year 1946 was a great year for insurance companies, the life companies, particularly, experiencing new "highs" The casualty companies were also rewarded by fine results, mainly because of a trend to increase premiums on those types of insurance which had proven unprofitable because of excessive claims, i.e. burglary and automobile insurance.

Much of the life insurance production has been attributed to the increasing interest on the part of business men the country over in Pension Trust Plans and Group Annuities. It is easily understood why these plans should be popular when it is realized that the amount expended by companies in such Trusts are deductible from income tax returns, whereas the amount credited to the individual each year need not be added to his or her income tax return as additional compensation. Another reason for increased life production is the offshoot of the so-called "easy money" of which the public seems to have a large share. And finally, the Life Insurance Companies of America, having withstood so well the difficulties of another war, public confidence has reached a new high, so that today life insurance still is found to be the backbone of the average estate.

National Service Life Insurance. One of the biggest bits of news for the year was the signing of Bill 6371 by the President, completely overhauling, liberalizing, and modernizing our National Service Life Insurance as of August 1, 1946. The major revisions consisted of adding plans of insurance, which hitherto had not been available, the range of policies now including Term, Ordinary Life, Twenty-Payment Life, Thirty-Payment Life, Twenty-Year Endowment, Endowment at age sixty-five, and Endowment at age sixty. Also, the Bill enables the insurance owner to take advantage of Settlement Options similar to those available in the policies of Commercial Companies, as well as of the clause granting waiver of premium and monthly income in the event of total and permanent disability. But, the principal feature was the discontinuance of the rule preventing a policy-owner from having any but blood relatives as beneficiaries. Now, any person, corporation, or entity may be named as a beneficiary. There are many veterans to whom Government or National Service Life Insurance was unattractive because of the many previous restrictions, who will now be happy to continue their policies.

Life Insurance. In a report published towards the end of the year the Institute of Life Insurance stated that the American families are now using 3 3 percent of the national income for family protection through life insurance. Thus, the current flow of premium payments runs at the annual rate of $5,500,000,000. Such a large premium total provides life insurance protection in the amount of $160,000,000,000, supplemented by annuities which represent an annual income of $866,000,000. Comparing these figures with those for 1945 we have a substantial increase. For example, the 1945 premium total was $5,249,000,000 as against the above $5,500,000,000 for 1946.

In October, 1946, at the annual meeting of the Life Insurance Advertisers Association Holgar J. Johnson, President of the Institute of Life Insurance, announced a six-point program enlarging the public relations activities of individual life insurance companies with emphasis on building further competitive environment through advertising. Mr. Johnson stated that competition in advertising and in other activities has proven of benefit, not only to the individual companies themselves, but to the life insurance business as a whole in its determination to meet its social obligations to the public.

Last fall the *American Magazine* made a nationwide survey which revealed some facts concerning life insurance. The survey showed that one out of five of this magazine's readers was planning to buy more life insurance; 14 percent of families with annual incomes of $5,000 or more, carry less than $5,000 of life insurance. It would seem from this that there is still much work to be done by the life insurance men and women of America.

Whereas most operating costs have increased materially, there is real pride among life insurance executives because the cost of operations in 1946 seemed to run parallel to those of 1945. And the 1945 figures were 13.7 percent as compared with 13.6 percent for 1944. The average for the last three years was 13.7 percent, while the average for the ten years prior to the war was 14.0 percent. This may not seem like a great margin of difference but applied to the total annual income of the business it represents a saving in aggregate expenses of approximately $20,000,000 annually.

Suretyship. Probably the biggest factor in the increased demand for Fidelity insurance, is the continued publication of stories in the daily press of trusted employees suddenly misusing funds entrusted to them or over which they have control. From the underwriter's standpoint the reason why these things occur is that the so-called trusted employee is not scrutinized and his books are not audited frequently. Thus, he may "borrow" some money with the thought of repaying later on. That is generally the way these cases start. It is only natural therefore that the results for the past year have been eminently satisfactory to the surety companies, who look for even better results in the immediate future.

Marine Insurance. Marine underwriters and executives generally seem to be most optimistic about the future and very happy about the results in 1946. The year just closed gave them a healthy increase in the volume of business and with the peacetime trade "getting into the swing of things" premium volume on marine insurance naturally increased. This was particularly true of shipments to South America. "All in all," said one marine executive, "marine insurance is 'moving up.'"

War Damage Insurance. On March 16, 1946, the War Damage Corporation ceased to operate after having issued 8,700,000 policies through 546 fire insurance companies and 88 casualty-surety companies. It was estimated by R.F.C. Chairman, C. B. Henderson, that on June 30, 1945, when War Damage Corporation was three years old, approximately $117,000,000,000 of insurance was in force. Since V-J day very few policies of "W.D.C." have been applied for. Thus, an impressive record of wartime service is closed.

Fire Insurance. In 1946, the fire losses in the United States touched the highest figure since 1906, the year of the San Francisco earthquake. One reason for the large increase, which brought the total losses to over half a billion dollars, was the increase in values over the last few years. A building that sold for $500,000 ten years ago, sells for about $1,000,000 today. With millions of similar cases of increase, countrywide, the volume of insurance is naturally much higher today. Of course, the main reason for the continued increase in claims, is that dwellings are burning at the rate of 400,000 a year. Fire losses have increased 30 percent since the end of the war and over 11,000 persons have been burned to death, of which 3,000 were children. In the month of August, 1946, alone, losses in the New York area increased 346 percent and countrywide losses in September alone were increased 24 percent. At a convention of Fire Chiefs held in New York it was said that "America is the world's Number One Fire Trap."

During the spring there were two disastrous hotel fires, the La Salle in Chicago, and the Canfield in Dubuque, Iowa. Little is known as to how La Salle Hotel fire started but before it was under control there was extensive damage and the loss of sixty-one lives in a supposedly "fireproof" structure insured for $2,000,000. Whereas the increasing claims have caused alarm among fire underwriters, still, the fact that the public is gradually being educated to increase the policies to meet the increased cost of replacement and increased values, should swell the premium income of the companies thus avoiding, for the time being, any thought of increasing premium rates.

Air Insurance. The continued increase in air travel has resulted in widespread interest in and use of air insurance by air travelers. This has been especially true in the number of people purchasing policies on a yearly basis, who heretofore had simply purchased trip policies at airports. In June, 1946, a twin-motored Army C-45 plane crashed into the Bank of Manhattan building, New York, doing considerable damage to the building. It was discovered later that the bank was protected under a $500,000 aircraft property damage policy, which it was said, had been purchased immediately following the airplane damage done to the Empire State building in July 1945. The Empire State building was not insured. The Manhattan Company's loss was estimated at only $50,000 and was far less than the extensive damage to the Empire State building.

Casualty Insurance. To meet the acute situation brought about by rising accident frequency and increases in average claim costs in automobile accidents the companies made a countrywide jump in rates on liability and property damage insurance, effective August 1, 1946. Announcement was made at the time, that when gasoline rationing was lifted in August 1945, the number of accidents increased sharply and the accident ratio has been increasing constantly since then. Companies see little promise of an early improvement in the situation.

An interesting departure from the almost "standard" method of operation was instituted when Governor Dewey signed the W. J. Mahoney Bill, amending Section 46 of the Insurance Law, to permit both fire and casualty companies to write the Personal Property Floater (known as "the all-in-one" policy). Heretofore the law permitted only fire and marine companies to write this type of coverage.

During the summer, the theft insurance rates were increased materially, as the result of the unusually heavy burglary losses, the companies having paid out in 1945 and the early part of 1946 as much as $1.50 for every dollar of premium received.

In general, the picture among casualty companies is unsatisfactory. The president of one of the foremost multiple line groups of companies characterized the business as "two-headed"—progressing better insofar as volume of business was concerned, but worse insofar as profit and loss results are effected. There is doubt among many of the executives of the major companies that there was much profit in the overall experiences of casualty companies for the year. This does not mean that these men are pessimistic. But they feel that until such time as strikes, labor disputes, priorities, unstabilized costs, and their accompanying ills have been stilled and the country swings into full production once more they will be lucky to break even. It is in that spirit that they welcome the year ahead.

MERVIN L. LANE.

INTER-AMERICAN AFFAIRS, The Institute of, and INTER-AMERICAN EDUCATIONAL FOUNDATION, INC., continued during the year 1946 cooperative development programs in the other Americas which

originally were initiated by the Office of Inter-American Affairs. The Office of Inter-American Affairs, which developed into a powerful wartime agency for coordinating the productive and economic power of the Western Hemisphere to support the United Nations against the Axis, was terminated by Executive Order of President Truman, effective May 20, 1946. This termination, a natural part of the government's reconversion program, did not affect the work of The Institute of Inter-American Affairs and the Inter-American Educational Foundation, which constituted its chief operating forces in the field.

During 1946, the major activities of the Transportation Division of the former Office of Inter-American Affairs were brought to a close. The Transportation Division continued to function, under the Institute, but upon a planned scale of diminishing activity, so its operations, as a unit, could be wound up by the end of the year. The operations closed out during 1946 included one of the most extensive transportation projects of the Office of Inter-American Affairs—the United States Railway Mission to Mexico. The success of this Mission was outstanding, in assisting to rehabilitate the Mexican national railroads. During many preceding years, and due to many complicated factors, these railroads were unable to bear the strain of wartime traffic needed to supply the United States with strategic war materials. The U.S. mission facilitated inestimably the movement of vital war materials, and with Mexican technicians laid the groundwork for better railroads in the future.

Under the auspices of the Institute, through the Transportation Division, visits to and tours of the United States were arranged for highway and transportation engineers from Brazil, Peru, Colombia, Ecuador, Panama, Costa Rica, and other American Republics. These missions had been found helpful during the war years, and during 1946, highway and bridge engineers, city planning experts, and other construction and operating authorities in the transportation field—usually officials of their respective governments—were aided in their postwar transportation problems by extensive tours in this country. They visited roads and highways of every type, bridges, tunnels, parkways, and many manufacturing plants where road-building and maintenance machines are produced. These inspections included New York, New Orleans, San Francisco and the West Coast, Chicago, Detroit, Pittsburgh, St. Louis, and representative cities and regions throughout the country.

The Office of Inter-American Affairs was created by Executive Order of the late President Franklin D. Roosevelt, August 16, 1940, and was headed by Nelson A. Rockefeller, with the title of Coordinator. Mr. Rockefeller directed the Office, which is now officially designated as the Institute, during all of its wartime operations. The Inter-American Educational Foundation was organized by the Office during 1943, to develop a comprehensive cooperative educational program with the other American Republics. As has been indicated above, The Institute of Inter-American Affairs and the Inter-American Educational Foundation, Inc., now have the status of two separate United States Government Corporations, under the general jurisdiction of the Department of State, with Colonel Arthur R. Harris as their common President.

The major operations of the Institute include projects in Health and Sanitation; Food Supply; a Training Division; Transportation (the program which is virtually completed, as far as the parent body, the Institute, is concerned, although the work it started will be carried on, it is planned, in the various countries concerned, by their own governments, and possibly with some continued assistance from the United States. That is a matter of policy to be determined in the future).

The Institute and its Health and Sanitation Division consistently sought implementation of the recommendations of the Third Meeting of Ministers of Foreign Affairs of the American Republics, held at Rio de Janeiro in January, 1942. Delegates of all twenty-one American Republics agreed at that meeting that:

> The defense of the Western Hemisphere required the mobilization of the vital forces, human and material, of the American Republics, and
>
> Adequate health and sanitary measures constitute an essential contribution in safeguarding the defensive powers and the ability to resist aggression of the peoples of the American Republics.

The joint inter-American cooperative health programs set up in response to this resolution had both an immediate and a long-range objective. Their immediate purpose was the health protection of Latin American workers producing vital war materials, and also the health of troops stationed in strategic areas throughout the Americas. The long-term purpose, which is now the major one, is the preparation of a groundwork for continued elevation of health standards in the hemisphere. Better health means, in turn, greater productivity, better levels of living, and an expanding economy in all the Americas.

This—plus educational and transportation advances—is the initial essence of the understandings upon which the "Good Neighbor Policy" was planned. It is the basis of the practical operations of The Institute of Inter-American Affairs and the Inter-American Educational Foundation.

The health programs of the Health and Sanitation Division of the Institute are organized entirely on a cooperative and democratic basis. They are administered by a joint organization known in most Latin American countries as the *Servicio Cooperativo Interamericano de Salud Publica*, or Inter-American Cooperative Public Health Service. This title is usually abbreviated to *SCISP*, and the agencies are popularly referred to as *servicios*.

Under the terms of the original agreements, the United States and the host government each contributed a share of the money, materials and trained men and women needed to carry on the programs. The direction of activities and the spending of pooled funds is decided upon jointly by the Chief of Party of the Institute, and an appointee of the cooperating national government. The *Servicio* is organized within the framework of the government, usually under the Health Ministry.

During 1946 there were about 10,900 health engineers, nurses, other technical personnel and unskilled workmen engaged in the operations of the *servicios*, with some 130 of the cooperating technicians from the United States.

The governments participating in this joint work, in the order in which they signed original agreements, were: Ecuador, Brazil, Haiti, Paraguay, Costa Rica, Nicaragua, El Salvador, Honduras, Peru, Bolivia, Guatemala, Colombia, Panama, Venezuela, Chile, Mexico, Dominican Republic and Uruguay. The Panama program was completed in 1945, but most of the others extend through 1947, and several through 1948.

As the agreements have been renegotiated, the participating Latin American countries have raised their respective contributions, and their na-

tional budgets for ministries and departments responsible for basic economy. Some of their allotments are larger than that of the United States. In one country the ratio is ten local dollars to one from the North American partner.

Training of South and Central American technicians is playing an integral part in all programs by providing a staff of national technicians to carry on the public health and sanitation activities after the expiration of the Institute program. This is being accomplished both by training of National doctors, nurses, and engineers in graduate schools of the leading Universities in the United States, and by working with North American technicians, both in their own countries and in the United States. This type of training gives the Latin American technicians a broad knowledge of American methods and products.

The objectives, sought and attained by this program, are of mutual benefit to the cooperating country and to the United States, both in terms of improvement in public health in the Western Hemisphere, and also as most important factors in promoting economic progress and facilitating commercial relations between the United States and the other American Republics.

The Institute's Food Supply Division has seen the wartime emergency character of its food supply program change from one of direct concern with the successful prosecution of the war, to operations emphasizing the improvement in chronic economic conditions that had been aggravated by war and that will continue critical, experts believe, during the immediate postwar years. The trend is increasingly toward greater financial participation in the programs by local governments, which must precede their assumption of administrative and technical operation of the programs.

The Food Supply Division's war objective was: to encourage and help organize increased production of food crops for workers engaged in the procurement of strategic materials, and for the armed forces.

Its objective now, as it has been since the end of the fighting, is: to demonstrate ways of improving the level of living and increasing the purchasing power of the people, who are potential suppliers and customers of the United States; thus contributing to the economic stability of neighbor countries, and increasing the purchasing capacity of important customers, who have a still more important potential purchasing capacity as their levels of living are increased.

The Third Inter-American Conference on Agriculture, at Caracas, Venezuela, in July, 1945, recognized the need for continued agricultural assistance by the United States. In its Final Act, the Conference stated that the work of The Institute of Inter-American Affairs and the United States Department of Agriculture has been beneficial "(a) in promoting the production of food; (b) in facilitating technicians and new agricultural techniques; (c) in furthering technical education and development by the interchange of students," . . . and that . . . "This collaboration should be continued so that it may render the maximum possible benefits."

The program of the Inter-American Educational Foundation was developed to implement resolutions adopted at inter-American conferences, especially the Conference of Ministers and Directors of Education of the American Republics, at Panama in 1943, recommending cooperative action to improve and strengthen educational facilities in the Americas. The general objective of the Foundation is the development of cooperative educational programs with the other American republics that emphasize vocational and health education, the training of teachers, the improvement of rural life and agriculture, the development of community schools, and the teaching of the English language.

Educational activities have been carried on in all twenty of the other American republics, including those which did not sign cooperative agreements. Activities in those countries consisted largely of interchanges of personnel and materials. Twenty-one specialists in vocational, health, and rural education, teacher training, and English teaching, were sent to the other American republics in 1944 and 1945. During 1946 these twenty-one specialists were joined by some thirty additional associates and collaborators. During the last three years between 500,000 and 600,000 books, pamphlets, maps, charts and other teaching materials were made available to the Field Parties of the Foundation, and to schools in all twenty of the other American republics. All in all, about sixty distinguished educators, supervisors and teachers have been brought to the United States from the other republics, to lecture, study, and to participate in national, state, and local educational programs.

Thus, it is seen that The Institute of Inter-American Affairs has gone through three functional phases: (1) its beginning, some six months before Pearl Harbor, had two motivations: the emergency aspect of hemisphere defense; and the long-term aspect of economic development of the Western Hemisphere, all based on mutual understanding and cooperation; (2) the combat years of the war, a program of vigorous inter-American cooperation in military affairs, control of subversive activities and Axis propaganda; health and sanitation; transportation; communications; education and general economic development; (3) the present phase, which assumes two broad categories: economic development, with attendant health, sanitation, food supply and education programs; and informational activities.

The fundamental objective: pre-Pearl Harbor; war; and postwar, remains unchanged. The "Rio Charter" (formulated by the emergency conference of the Ministers of Foreign Affairs of the American Republics at Rio de Janeiro, after Pearl Harbor) visualized the well-being of all the peoples of the Western Hemisphere as a fundamental goal. That continues to be the charted course of The Institute of Inter-American Affairs and the Inter-American Educational Foundation.

ARTHUR R. HARRIS.

INTER-AMERICAN DEFENSE BOARD. An autonomous, permanent organization under the auspices of the Pan American Union (q.v.) established in accordance with Resolution 39 of the Meeting of Foreign Ministers of Rio de Janeiro in January, 1942. It is composed of military, naval, and aviation technical delegates appointed by each of the governments of the 21 American Republics to study and to recommend to their governments the measures necessary for the defense of the western hemisphere. Chairman: Lt. Gen. M. B. Ridgway; Coordinator: Brig. Gen. F. A. Irving; Secretary General: Col. L. S. Hitchcock.

INTERIOR, U.S. Department of. A Department of the U.S. Government, created in 1849 and charged with the responsibility for advancing the domestic interests of the people of the United States. In 1946 it comprised the following principal branches:

Office of the Secretary
Bureau of Land Management

Bureau of Reclamation
Geological Survey
Oil and Gas Division
Coal Mines Administration
Bureau of Mines
Office of Indian Affairs
National Park Service (see NATIONAL PARKS)
Fish and Wildlife Service
Office of Fishery Coordination
Petroleum Conservation Division
Solid Fuels Administration for War
War Relocation Authority (terminated June 30, 1946)
Division of Power
Division of Territories and Island Possessions
Puerto Rico Reconstruction Administration
Office of Land Utilization
Office of the Solicitor
Office of the Chief Clerk
Division of Information
U S Board on Geographical Names
Budget and Administrative Management Division
Bonneville Power Administration
Southwestern Power Administration
Division of Personnel Supervision and Management

Secretary of the Interior in 1946: Julius A. Krug; Under Secretary, Oscar L. Chapman.

INTERNAL REVENUE, Bureau of. A division of the U.S. Department of the Treasury, created in 1862, which supervises the determination, assessment, and collection of all internal revenue taxes and enforces the internal revenue laws. In addition it is charged with the stabilization of all salaries in excess of $5,000 as well as salaries under $5,000 of executive, administrative, and professional employees not represented by a recognized labor organization. Major divisions are the Income Tax Unit, the Alcohol Tax Unit, the Miscellaneous Tax Unit, the Salary Stabilization Unit; the Accounts and Collections Unit, and the Field Service. Commissioner: Joseph D. Nunan, Jr.

INTERNATIONAL COMMISSIONS. The following Commissions were related organizations of the U.S. Department of State in 1946.

International Boundary Commission—United States, Alaska, and Canada, created under treaties of 1906, 1908, and 1925 to define, mark, and maintain the boundary between the United States and Canada and between Alaska and Canada.

International Boundary Commission—United States and Mexico, organized under the treaty of 1889.

International Fisheries Commission—United States and Canada, established in 1923, which investigated and now regulates the halibut fishery.

International Joint Commission—United States and Canada, created in 1909 with jurisdiction over the boundary waters between the United States and Canada.

Caribbean Commission—United States, France, the Netherlands, and Great Britain, organized to encourage and strengthen social and economic cooperation between member countries and their territories and colonies in the Caribbean area.

INTERNATIONAL INFORMATION AND CULTURAL AFFAIRS, Office of (OIC). Government agency which was created Jan. 1, 1946, to continue the overseas information activities of the Office of War Information and the Office of Inter-American Affairs. The agency, which functions within the Department of State, succeeded an interim international information service. The purpose of the OIC is described in a published letter from Secretary of State Byrnes to President Truman as that of presenting to the world "a full and fair picture of American life and of the aims and policies of the U.S. Government." American libraries of information are to be maintained abroad. Documentary films describing the U.S. are to be scored into foreign languages and sent overseas. A Russian-language magazine intended for distribution in the Soviet Union is to be continued, and short-wave broadcasting will proceed on a reduced scale until action has been taken to dispose of transmitters and frequencies now controlled by the Government. The exchange of students, scholars, and technicians with foreign countries will be continued on a larger scale; operating under the supervision of diplomatic missions, particularly in the case of Latin America; and small staffs will be maintained in 62 countries to direct informational and cultural relations. Mr. Byrnes adds that although the program is "modest compared to war-time standards," it is a "new departure for the United States" for which "a significant expansion in terms of personnel and budget" is planned. William R. Benton, Assistant Secretary of State, is in charge of public affairs for the agency, and the director is William Stone. The Chief of the International Press and Publications Division is J. Noel Macy. Chief of the International Broadcasting Division is Kenneth D. Fry.

INTERNATIONAL LABOR ORGANIZATION (ILO). An association of nations which seeks by international action to improve working conditions, raise the standard of living, and further economic and social stability. Its machinery consists of the International Labor Conference, the Governing Body of the International Labor Office, and the International Labor Office. The Conference, which meets at least annually, is composed of four delegates from each Member State: two Government representatives and a representative each from management and labor who are chosen by Governments in agreement with the most representative employers' and workers' organizations in their respective countries. The principal function of the Conference is to adopt Conventions and Recommendations which define minimum standards of social policy. Sixty-seven Conventions and 74 Recommendations have been adopted by the Conference.

The Governing Body is composed of thirty-two members, sixteen of whom represent Governments, eight of whom represent labor and eight of whom represent management. Eight of the Government seats are non-elective and are held by the states of chief industrial importance. The other eight are filled by Governments elected by the Government delegates to the Conference in an election in which the eight states of chief industrial importance do not participate. The labor and management representatives are elected by the labor and management groups at the Conference.

The International Labor Office acts as the secretariat to the Conference and Governing Body, publishes a series of periodicals, including the monthly *International Labour Review*, which appears in English, French and Spanish, undertakes research on problems of industrial safety, employment, social security, etc., and publishes the results of these studies and reports in several languages.

The Directorate of the International Labor Office is; Acting Director: Edward J. Phelan (Ireland); Asst. Directors: Lindsay Rogers (United States); Jef Rens (Belgium); George A. Johnston (United Kingdom). ILO Branch offices: Washington, London, Paris, New Delhi, Chungking.

See LABOR CONDITIONS under *Labor Movements.*

INTERNATIONAL TRADE, Office of. The basic purpose and function of the Office of International Trade, Department of Commerce, is to promote the foreign trade of the United States, both export and

import, with the view to maintaining full production and employment, facilitating the expansion and balanced growth of international trade, and stabilizing international economic relations. In pursuing this objective the Office represents the interests of the foreign trade community, not only in supplying its continuing need for factual information, analysis and advice concerning world commerce, but also in providing it with a channel and voice in the formulation of this country's foreign economic policy, and, in turn, interpreting that policy to business men.

The Office is charged with execution of the Department's statutory responsibilities of collecting, analyzing, and disseminating statistics and other information as to the foreign trade of this and other countries, as to present and potential sources of supply for imports and markets for exports, and as to foreign business concerns, trade opportunities and available channels of distribution.

The Office administers the China Trade Act, under which companies may secure Federal incorporation, provided that they will, in the judgment of the Secretary of Commerce, aid in developing markets in China for goods produced in the United States. Corporations organized and operated in accordance with the Statute and regulations, doing business solely in China, enjoy certain tax exemptions under the internal revenue laws.

The administrative functions of the Secretary of Commerce under the Foreign Trade Zone Act of 1934, as well as those of the Executive Secretary of the Foreign Trade Zones Board, likewise fall within the Office of International Trade.

It is also the function of the Office of International Trade to participate, with the State Department and other interested agencies, in formulating the foreign commercial and economic policy of the United States; representing the Department of Commerce on the President's Executive Committee for Economic Foreign Policy, the interdepartmental Trade Agreements Committee and the Committee for Reciprocity Information, as well as other departmental committees, such as the Board of the Foreign Service. Through the membership of the Secretary of Commerce on the National Advisory Council the Office also participates in the foreign lending and investment policy and program of this country, as carried out by the International Monetary Fund, the World Bank, the Export-Import Bank, and otherwise. The Department's responsibilities in connection with the activities of the United Nations, particularly with respect to the Economic and Social Council, the Food and Agriculture Organization, and the proposed International Trade Organization, are likewise borne by this Office.

The export control powers, which were administered by the former Foreign Economic Administration, are exercised by this Office.

ARTHUR PAUL.

INTERSTATE COMMERCE COMMISSION (ICC). An independent establishment of the U.S. Government empowered to regulate, in the public interest, common carriers engaged in transportation in interstate commerce. (For details, see YEAR BOOK for 1940.) Part IV of the Interstate Commerce Act, approved May 16, 1942, conferred upon the Commission jurisdiction over freight forwarders. Chairman: George M. Barnard.

IRAN (Persia). A kingdom in southwestern Asia. Area, approximately 628,000 square miles. Capital, Teheran (Tehran).

Characteristics of the People. Estimates of the country's population vary from less than 10,000,000 to over 15,000,000. From a quarter to a third of the inhabitants are still nomads, living largely under tribal organization. Most Persians are Moslems of the Shia sect, except for some 850,000 Sunnis. There are small communities of Parsees, Jews, Armenians, Nestorians, Bahaists and others. Persia had been the melting pot of invading peoples and races from time immemorial, and this is evident from the existence of various minorities within her borders: e.g. Armenians and other Caucasian peoples in the northwest, Kurds in the west, Turks in the northeast, Arabs in the southwest, etc.

The educational system of the country was drastically reformed during the modernizing era of Riza Pahlevi. In 1937 there were 4,939 schools, a figure which during recent years has undoubtedly grown considerably. A university has been set up at Teheran offering a wide curriculum of technical and liberal studies. In general, foreign schools have been absorbed into the national educational system or have been abandoned.

Government. The reigning king, or Shah, is Muhammed Riza Pahlevi, who succeeded his father, Riza Khan Pahlevi in September, 1941, when the latter was forced to abdicate by concerted Anglo-Soviet action because of his unwillingness to take energetic measures against the Axis and its agents in his country. The Constitution provides for a national assembly, or Majlis, to which the Cabinet is responsible. The country is divided into numerous divisions and subdivisions, the administrators of which are responsible to the central government.

The budget estimates for 1944–45 showed a revenue of 10,325,000,000 rials and an expenditure of 10,324,000,000 rials. These figures include both the ordinary and the extraordinary budgets, the latter of which provides for the Government's various industrial and commercial enterprises. In recent years a number of American financial experts under Mr. Arthur C. Millspaugh served the Persian Government.

An American police mission under Colonel Norman Schwarzkopf of New Jersey has been reorganizing the country's police forces. The army, navy and air forces have also been undergoing reorganization. Beginning in 1941 considerable areas of Iran's national territory were occupied by British, Soviet, and American troops. However, the country's territorial integrity, sovereignty and political independence were guaranteed by a treaty of alliance signed at Teheran by Great Britain, the U.S.S.R. and Iran on Jan. 29, 1942, and by the end of 1946 the country was virtually free of foreign troops. This was confirmed by a Declaration made by Mr. Churchill, President Roosevelt and Marshal Stalin at the time of the Teheran Conference, Dec. 1, 1943.

Events, 1946. The year opened with a search for some sort of formula by which Iran could be freed of foreign occupation. All American forces were withdrawn by January 1, and only a few thousand British troops remained. The real problem concerned the extensive Soviet forces in northern Persia. The Big Three Conference at Moscow (see YEAR BOOK for 1945, p. 284) had failed to reach a decision. The British desired that a tripartite commission visit Iran and suggest reforms, but could not get agreement for this suggestion. Meanwhile disorders were spreading in Azerbaijan Province, where the Soviets showed increasing signs of encouraging the local separatist movement.

On January 19 Iran filed formal charges with the Security Council, asking that this body investi-

gate Russia's behavior and recommend a settlement. Six days later the Soviets denied having interfered with Iran's internal affairs or that the latter's attempts to negotiate with Moscow had been fruitless, and they announced their opposition to having these charges debated by the Security Council. The latter body argued the question on the 28th despite the Soviet insistence that no dispute existed. However, on the 30th the Council agreed to the Russian proposal for direct negotiations with Iran, but with the Council continuing to keep an eye on events. At the same time it was announced in Teheran that Russia had surrendered control of the railways in northern Iran.

Meanwhile on Jan. 21 the Hakimi Ministry had resigned, to be succeeded by one under Ahmad Qavam-es-Sultanah, seasoned politician and reputedly a friend of Moscow. The Majlis elected Qavam by a vote of 53 to 51 on the 26th. It was with him that the Soviets entered direct negotiations. On February 19 an Iranian delegation under Qavam arrived in Moscow, where they were wined and dined, but apparently made little progress toward reaching an agreement. The Prime Minister returned to Teheran on March 11.

The Soviets Refuse to Withdraw. In the interim the deadline for the withdrawal of foreign troops, fixed under the terms of the Anglo-Soviet-Iranian Treaty of 1942 at March 2, had come and gone. The British had evacuated their forces by the stipulated date, but the Russians announced that theirs would "remain in Iran until the situation is clarified." Nevertheless Moscow asserted that Soviet troops were evacuating Meshed and northeastern Iran, though other sources denied this. The British Foreign Office expressed concern and asked for an explanation. In a note of March 6 the United States charged the Soviets with violating their pledge under the 1942 treaty.

The day after Qavam returned to Teheran the mandate of the Majlis expired and the Prime Minister ruled thereafter without it. During one of its last sessions the members of the Majlis had cheered a speaker who asserted that Iran should arraign the Soviet Union before the United Nations Security Council.

Quite a stir was created on March 12 when it was reported that Soviet troops were advancing south and west from the Azerbaijan province of Iran toward Turkey and Iraq, as well as eastward toward Teheran. The Russians denied any such movements and accused "reactionaries" of spreading false rumors. Other reports declared that a Soviet-sponsored Kurdish state had been set up in Iran and that its forces were fighting against the Iranian Army. Amid all this welter of rumor, charge and countercharge—reliable news about affairs in Iran being well-nigh non-existent—former Prime Minister Churchill was in the United States whipping up anti-Soviet feeling.

The Case Before the Security Council. Secretary-General Lie revealed on March 19 that Iran's formal charges had been filed, accusing the Soviets of violating the 1942 treaty and interfering in her domestic affairs. The next day saw Russia ask for a postponement of the issue until April 10. The United States wanted it placed first on the agenda. However, on the day before the Security Council met the Moscow Radio announced (March 24) that in agreement with Iran the Soviet government had decided to withdraw all its forces from that country within five or six weeks "if nothing unforeseen occurs." This eased the tension momentarily, though Qavam said there was no such agreement.

When the Council met on March 25 it postponed the Iranian question to the next day. On the 26th the Soviet delegation, threatening a boycott, asked for a two weeks' delay, but was outvoted. On the 27th Andrei Gromyko, the Soviet representative, walked out of the Council while Hussein Ala, Iranian Ambassador in Washington, was given a hearing. Mr. Ala asserted that Soviet demands on his country included the retention of Russian troops in certain parts of Iran for an indefinite period and a recognition of the autonomy of Azerbaijan. Undeterred by Gromyko's abstention, the Council, seeking to get at the facts, asked both Russia and Iran to reveal by April 3 whether or not they had entered into any pact concerning the withdrawal of Soviet troops.

When the Council reconvened on April 3 it received answers from both parties which in substance reaffirmed their previous stands. The Soviet government, however, now stated that it had already begun to withdraw its forces from Iran—this was corroborated by independent sources—and all of them would be out by May 6, without any qualifications or provisos. The next day saw the Council vote to accept these assurances, with Iranian concurrence, but to keep the case on the agenda for the time being.

On April 5 the Soviet and Iranian governments issued a joint communiqué stating that agreement had been reached the day before on all outstanding questions, as follows:

"Red Army troops will evacuate all Iranian territory within one and one-half months from Sunday, March 24, 1946.

"An agreement for the formation of a joint Irano-Soviet oil company and its terms will be submitted to the fifteenth Majlis for its approval within seven months after March 24.

"With regard to Azerbaijan, since it is an internal Iranian affair, peaceful arrangements will be made between the Government and the people of Azerbaijan for the carrying out of improvements in accordance with existing laws and in a benevolent spirit toward the people of Azerbaijan."

It was learned that the oil company's concession comprised a strip of northern Iran, including Tabriz but not Teheran and Meshed. For the first twenty-five years the Iranian share in the joint oil company was to be 49 percent; thereafter, 50 percent. Russia was to bear all the costs of exploration but Iran was to retain title to all lands.

The Russians Evacuate. In view of this agreement, the Soviet Government questioned the legality of keeping the question on the agenda. The American delegation disagreed, as did also the Iranian. However, on April 14 Teheran declared that it had faith in the agreement with Russia and instructed Ala to ask that the case be withdrawn from the agenda—which he did on the 15th. But the United States, Britain and five other Council members did not concur, and a vote was deferred awaiting the report of a committee of experts. The latter voted on the 18th that the Council had a right to keep the case on the agenda even if both Russia and Iran asked that it be removed. The Council therefore on April 23 voted 5 to 3 to retain jurisdiction. Russia again threatened to boycott the Council's discussions of the case.

An interesting light on the whole affair was thrown by Michael Foot, a Labour Member of Parliament, upon his return to London on April 21 after a brief visit to Iran. He gave it as his opinion that Russia, not the United Nations, was the real victor since she had in reality attained most of her primary objectives. He also asserted that he had

not been allowed to enter Azerbaijan, where fighting was said to be going on between the forces of the central government and those of the autonomous regime in Tabriz. On April 23 it was reported that Azerbaijan and the "independent Kurdish state" had signed a twenty-year alliance.

The withdrawal of Russian troops from Tabriz was the signal for the autonomous regime of "Prime Minister" Pishevari of Azerbaijan to seek terms with the central government, and he therefore went to Teheran on April 28. The negotiations dragged on through May into June, always reviving after temporary collapses. Finally on June 14 a ten-point program acceptable to both parties was announced. It was summarized in the London *Times* of June 15 as follows:

"The Persian Central Government will appoint the Governor-General of Azerbaijan after receiving nominations from the provincial council.

"The Azerbaijan national army will not be disbanded, but will come under the command of the Persian Army while a commission appointed by the Central Government and the provincial council considers problems arising from the situation. Volunteer forces will be absorbed in the gendarmerie.

"Of the revenue raised in Azerbaijan, 75 percent will go to its own provincial funds and 25 percent to the national funds.

"The Kurds are to have all the privileges of Azerbaijanis and the Kurdish language will be taught in their primary schools. Armenians and Assyrians will also have the same privileges as Azerbaijanis.

"The provincial council will remain until the coming elections for the Majlis (Persian Parliament)."

Meanwhile the deadline for the completion of Soviet withdrawal had arrived on May 6, but no one could say for sure whether or not the Russians were all out. On the 7th the Soviets ignored a United Nations request for a statement concerning their withdrawal, and on the 8th the Security Council voted to keep the question on the agenda. On the 20th Ala told the Council that he could not confirm Russian evacuation and that the Soviets in any case were still interfering in Iranian affairs. But on the next day he officially informed the Council that the Russians had left by May 6 as agreed. This *volte-face* was apparently the result of intrigues within the Iranian Cabinet, where Prince Firouz, a pro-Soviet politician, was known to dislike Ala and his policies. The Iranian Embassy in Washington in fact announced on May 29 that Ala had been instructed to say no more about the Soviet Union to the Security Council.

Troubles in Southern Iran. In commenting on the Russo-Iranian oil deal of April 4, Foreign Secretary Bevin told the House of Commons on April 17 that Britain intended to await the evacuation of all troops before entering new oil talks with Teheran. Three months later there was serious trouble in the oil fields of southern Iran, owned by the Anglo-Iranian Oil Co. By July 18 some 100,000 workers were said to be on strike, production was at a standstill, and rioting in Abadan and other centers had led to the imposition of martial law. The whole affair had been sprung with great suddenness and showed careful organization. The Tudeh Party, and perhaps behind it the Soviet regime, were suspected of having been the prime movers. Bevin stated in Commons that he was holding the Teheran government strictly responsible for maintaining order, though in the end it was local officials who settled the strike and restored order before the Qavam Cabinet could swing into action. Because of the crucial importance to Britain of the oil supplies and refinery equipment of the Anglo-Iranian Oil Co., troops were dispatched from India to Basra in Iraq, across the river from Abadan (see IRAQ). Qavam objected to this move, but on August 9 a spokesman for the British Foreign Office said that his government might find it necessary to move into southern Iran, without waiting for United Nations action, to put down any "violent or sudden" threat to British interests there. The Russians were reported to be massing troops along the northern frontier of Iran, ready to move in if the British led the way. Happily this crisis was surmounted without any international violence.

In mid-September reports of an uprising began to seep out of Fars province in southern Iran. This revolt, led by Nasir Khan of the powerful Qashqai tribes, was apparently aimed at driving the leftist (Tudeh) element out of the Cabinet—to which it had been admitted on August 1—and at acquiring local autonomy such as that already granted to Azerbaijan. The Central Government saw the British behind this insurrection and demanded the recall of C. A. Trott, Oriental Secretary at the Embassy in Teheran, whom it accused of complicity. The British government denied this accusation.

After three weeks of fighting in which Bushire and several other places were taken by the rebels and Shiraz was surrounded, a truce was arranged on October 6. In a communiqué issued on the 17th it was announced that the rebels had agreed to cease hostilities in return for provincial autonomy, a larger representation in the Majlis, an extension of the railway into Fars province, a general amnesty, and other demands. Two days later Qavam dropped the Leftist members of his Cabinet, thus ending the coalition formed during the summer.

The "Reoccupation" of Azerbaijan. In the spring the Qavam ministry had postponed the elections until the country should be free of foreign troops. On April 24 the appointment of an electoral council was announced whose function it was to see that the elections were "absolutely free, with no pressure exerted by foreign or other hands." This body met on May 25 and Qavam told it that elections must be held as soon as the Azerbaijan problem had been settled. On June 28 he revealed the formation of a new Democratic Party and made threats against "reactionaries." Two days later the Tudeh Party reported that it had formed a coalition with another leftist group. On August 1 Qavam presented his new cabinet, containing three Tudeh members. But after these had been dropped in October following the revolt in Fars, the leftist groups denounced Qavam as a "reactionary" and six of them banded together in a "United Freedom Front."

Having thus clarified the political situation, Qavam decided to get rid of the Communist-dominated regime in Azerbaijan. Apparently he had discovered that the Soviet Government was no longer prepared to give effective support to its puppet regime at Tabriz. At any rate, in mid-November the Iranian Army began moving toward Azerbaijan, where they were ordered to supervise the elections set for December 7. The Tabriz regime countered with a threat to declare its independence, but was unable to make good on it. There was a brief civil war, but by December 11 Pishevari had capitulated and on the 13th government troops entered Tabriz. At the same time the Central Government put an end to the Kurdish "republic."

These events were regarded as a severe blow to Soviet prestige and to the position of the Tudeh

party. The latter chose to boycott the elections, which had been postponed once again, and the leftist forces in Iran went underground.

The Country and Its Economy. By and large Iran is a barren country abounding in vast deserts and steppes where only a sparse nomadic population can obtain sustenance. Yet much of its soil is fertile and only awaits irrigation. Despite these unfavorable conditions Iran is essentially an agricultural country producing a wide variety of grains, fruits and livestock. One of the factors holding back agricultural progress is the fact that two-thirds of the land is in large estates. Under this feudal system small landowners constitute only a small minority of those tilling the land. The principal agricultural products are wheat, barley, Indian corn, rice, many varieties of fruit, tea, tobacco, cotton and silk. Cattle, horses, donkeys and camels are also bred extensively. Persia has long been a principal producer of the poppy from which opium is derived.

Industrialization has already begun in a small way with the production of such goods as textiles, carpets, glass and sugar. As a consequence there is arising an industrial proletariat in some of the larger cities.

Many of the mineral deposits have been only partly explored and are largely undeveloped. Oil is by far the most valuable mineral product now exploited in the country and the international competition for its control has kept Iran in intermittent danger of losing her independence for forty years. In southwestern Iran the Anglo-Iranian Oil Company has a large concession on which oil is produced, piped to refineries at Abadan on the Shatt-el-Arab and exported in large quantities. In 1941 Iran ranked fourth among the oil-producing countries of the world with an output of 6,708,000 metric tons. By 1945, under the impetus of war needs, the production of the Anglo-Iranian Oil Company had reached 16,839,490 tons. New refinery capacity, including facilities for producing high-octane aviation gasoline, had also been installed. The company employed 65,000 Iranians and Abadan had become a city of 120,000 inhabitants.

The two principal ports on the Persian Gulf are Khorramshahr and Bandarshapur. The main line of the Trans-Iranian Railway was completed in 1938 from Bandarshapur through Teheran to Bandarshah on the Caspian Sea, a distance of 865 miles. Though this was one of the engineering triumphs of the 20th century, some of the line had to be rebuilt in order to transport Lend-Lease material to the Union of Soviet Socialist Republics during the recent war. Branch lines have been started towards Tabriz, Meshed and Yezd, but none of them is as yet completed. Southern Iran lies along the routes used by the principal airlines between Europe and India.

ROBERT GALE WOOLBERT.

IRAQ (Irak). A kingdom occupying the lower and middle parts of the Tigris and Euphrates river basins, frequently referred to as Mesopotamia. Its area is 116,600 square miles. Capital, Baghdad.

Characteristics of the People. The estimated population in 1935 was 3,560,456. Over 3,000,000 of these were Moslems; 101,375 were Christian, including Orthodox, Catholics, Protestants and a few remaining Assyrians; and 90,970 were Jews. The official language, spoken by the great majority of the people, is Arabic. However, on the northern and eastern frontiers there are Kurdish and other minorities which jealously preserve their cultural identities.

According to law primary education is free and compulsory, but the law is not enforced everywhere. Recent statistics show 897 elementary schools, 76 private primary schools, 69 intermediate and 897 secondary schools. By far the great majority of these institutions are for boys, though the education of girls has been making marked progress in Iraq during recent years. There is a university in Baghdad, and colleges of engineering, medicine, pharmacy, teacher training and law, as well as technical schools of agriculture, nursing, etc.

Government. The reigning king is Faisal II, who succeeded to the throne after the death of his father, King Ghazi, on April 4, 1939. During the King's minority, affairs are in the hands of a Regent, Emir Abdul Illah. The Class A Mandate, under which Iraq had been governed following the First World War, terminated in 1932 when the country achieved its juridical independence and became a member of the League of Nations. Iraq was the first of the mandated areas thus to acquire its freedom as promised in the Covenant of the League of Nations.

The Constitution provides for a limited monarchy and a responsible government. The legislature consists of a Senate of twenty elder statesmen nominated for eight-year terms, and a Lower House comprising 115 elected Deputies. For administrative purposes the country is divided into fourteen liwas. The army was reorganized after the pro-Axis revolt in which certain elements of the army had participated in 1941. The police force is under British technical supervision.

Events, 1946. The year was marked by considerable ministerial instability. On January 30 the resignation was announced of the cabinet of Hamdi el Pachechi. His government was characterized as too dilatory in instituting the social reforms in which the Regent, Prince Abdul Illah, had become interested during his recent trip to the United States. Some progress in this direction had already been made with the repeal of the prohibition on political parties and labor unions.

Meanwhile the Kurds in northeastern Iraq continued to cause anxiety in Baghdad, particularly since it was feared that the rebel leader Mustafa el Barzani might return from Iran with Soviet support. The new premier, Tewfik Suwaidi, declared in Cairo on March 24 that in reality the Kurds presented no problem because they enjoyed equal rights in Iraq. However, in early April Kurdish sources reported that reenforcements of Iraqi troops had been ordered into Kurdish territory northeast of Kirkuk. These troops along the Iranian frontier were inspected by the Regent, who was doubtless apprehensive over the possibility of Soviet intervention, at that moment very evident in the neighboring Iranian province of Azerbaijan.

The Suwaidi Ministry resigned on May 31, its fall being attributed to its weakness on the Palestine issue and to its slowness in negotiating a revision of the treaty with Great Britain. In this connection it should be mentioned that on April 9 it was announced that the Anglo-Iraqi financial agreement had been renewed for a year. Under this arrangement Iraq was to be allowed $14,000,000 from the British sterling pool and in return would accept sterling for British purchases in Iraq.

The new cabinet was led by Arshad el Umari, who had served as Mayor of Baghdad, foreign minister, and delegate to the San Francisco Conference. It contained three Kurds, in accord with the usual practice of giving representation to this important minority. One of the new Government's early acts was to approve a ten-year plan for the

reconstruction and development of the country's irrigation system, its health and sanitary facilities, its schools and the like. On July 1, Dr. Ihsan Dogramaji, Iraqi health delegate to the United Nations, declared in New York that his country needed financial assistance in order to combat such scourges as malaria, tuberculosis and infant mortality.

On July 3 a strike broke out among the workers in the oil fields around Kirkuk over such issues as wages and housing. It was settled by the 18th, but not before several persons had been killed in clashes between workers and police. No doubt impelled by these events, the Government suppressed twelve leftist newspapers and arrested twenty members of the unauthorized National Democratic Party on charges of engaging in Communist activity.

This fear of Soviet infiltration southward from Azerbaijan was not confined to the Iraqi government. Britain, too, had reason to suspect that Russia had designs on southern Iran with its all-important oil fields and refineries, owned and operated by the Anglo-Iranian Oil Co. (see IRAN). On August 2 the Indian government announced that troops were being sent to Basra in order to guard these oil installations across the Shatt-el-Arab in southern Iran. Indian public opinion was openly critical of this move, and the Iranians protested. Nevertheless by August 10 a heavily armed and mechanized Indian division was at Basra, ready to move into Iran. Soviet sources such as the Moscow radio tried to make political capital out of these measures, accusing the British among other things of stationing 80,000 troops in Iraq—a charge branded by the British as utterly fantastic.

Iraq continued to play its part in the Arab League, though not always as actively as some of the more advanced Pan Arab elements could wish. There were also suspicions that the Government was reorienting its policy toward Turkey and Iran, along the lines laid down in the Saadabad Pact. In January a delegation under Nuri-es-Said, former Prime Minister and at that moment President of the Senate, left for Turkey to engage in political and economic talks. In March Premier Suwaidi stated that these conversations were not general but dealt only with clearly defined subjects. He admitted that the Saadabad Pact was still in force but denied that it constituted an "eastern bloc" opposed to or competing with the Arab League.

Upon at least two occasions during the year there was public discussion, by responsible leaders, of the proposal for federal union between Iraq and Trans-Jordan in certain limited fields such as foreign affairs, defense and finance (for details see TRANS-JORDAN).

The government of Arshad el Umari, which resigned in mid-November, was succeeded by one led by Nuri Pasha, who thus took the office of Prime Minister for the sixth time. At the same time the Regent dissolved parliament and called an election, the first to be held under the new law with its broader franchise. Nuri, one of the founders of the Arab League, sought to allay suspicions concerning the much-bruited project to create a "Greater Syria" by declaring that the "Syrian people alone will determine the future of Syria."

It was announced in Washington on November 23 that the American Legation in Baghdad would be elevated to an Embassy. The new American Ambassador was George Wadsworth, for many years a United States Foreign Service Office in the Middle East.

In December the Standard Oil Co. of New Jersey and the Socony-Vacuum Oil Co., who together owned 23½ percent of the Iraq Petroleum Co., announced that they were planning to increase their investments in Iraq, primarily in order to double the capacity of the pipeline to the Mediterranean. They also made known their intention to purchase large quantities of crude oil, in both Iraq and Iran, from the Anglo-Iranian Oil Co., in order to take care of their expanding markets for oil products in Europe and North Africa.

The Country and Its Economy. Iraq is the land of the Biblical Garden of Eden. It has rich agricultural potentialities which could be realized by extensive irrigation and drainage works. At present about 10 percent of the area of Iraq is cultivated; 20 percent is potentially arable; 8 percent is mountainous; 5 percent consists of flooded areas, swamps and lakes; while 66 percent is desert or steppe country. In the north wheat and barley are important crops and sheep-herding is extensive. In the lower delta region some 80 percent of the world's total output of dates is grown.

The country's most valuable export is petroleum, which is produced at several places in northern Iraq. The principal oil field is at Kirkuk, which is connected by pipelines with the Mediterranean ports of Tripoli and Haifa. In 1942 oil production totaled 16,500,000 bbl. The Iraq Petroleum Company, which exploits the Kirkuk field, is controlled by an international group in which British, American and French interests have been represented.

In 1944 imports were valued at 14,218,361 dinars, and exports (exclusive of oil) at 9,488,409 dinars. Basrah, on the Shatt-el-Arab, is the country's principal port. At the beginning of the recent war the standard gage railway which had long been projected to connect Baghdad with Syria and Turkey—the old Berlin-to-Baghdad line—was finally completed. There is also a metre-gauge line from Basrah to Baghdad, and thence to Kirkuk and Khanaqin. Highway communication with Iran is maintained from the latter point. Altogether there are nearly 1,000 miles of railway in the country. There are also over 1,200 miles of good highway, including the routes from Baghdad to Damascus and from Baghdad toward Trans-Jordan and Palestine.

Iraq lies athwart the principal air lines running from Europe to India and the Far East. Before the war intercontinental services via Iraq were supplied by the British, French and Dutch.

ROBERT GALE WOOLBERT.

IRELAND, Northern. A part of the United Kingdom, consisting of six counties and two parliamentary boroughs in northern Ireland (Ulster). Area: 5,238 square miles. Population (1937 census): 1,279,745. Capital: Belfast.

The People. The latest available figures show religious affiliations as follows: 33 percent Roman Catholic, 31 percent Presbyterian, 27 percent Church of Ireland, and the remaining 9 percent in smaller denominations or unclassified. Educational facilities include elementary, secondary and technical schools, with the Queen's University of Belfast at the apex of the structure. The social insurance system operates as it does in Great Britain.

The Economy. Considerable attention was given to the problem of reviving the Irish linen industry, in peace times the British Isles' second industry with respect to exports to America and an employer of 70,000 persons. For a number of reasons the business was not able to meet the demands of North and South American buyers, especially for handkerchiefs and table linen. Linen had suffered

from the British Board of Trade's prolonged direction of the greater part of its output into utility goods (standardized goods of good quality but low price, prescribed by the British Government to ease consumer shortages). The manufacture was less attractive than formerly to Irish girls who had known wartime pay in munitions factories.

The traditional bases of Northern Ireland's industrial structure, in addition to linen, are agriculture and shipbuilding. Agriculture is the largest single industry, with cereal grains, potatoes and flax as the chief crops. Shipbuilding, like linen, is centered in Belfast.

Government. Although Northern Ireland is an integral part of the United Kingdom and is represented by 13 members in the British House of Commons, the country exercises a degree of local autonomy through a Parliament of its own and a Cabinet responsible thereto. The Parliament consists of a Senate of 2 ex-officio and 24 elected members and a House of Commons of 52 members, all elected. In 1946 the Unionist Party was in power, as a result of the 1945 election, and all members of the Cabinet were Unionist. Prime Minister: Sir Basil S. Brooke.

Events, 1946. Early in the year the Government of Northern Ireland took steps to centralize its transport system. In a White Paper issued January 8 it was explained that it had been decided that the only way of obtaining an efficient and solvent public transportation system was to merge into a single undertaking the Road Transport Board, the Belfast and County Down Railway, and the systems of the London, Midland and Scottish Railway and the Great Northern Railway (Ireland) operating in the country.

Like many other countries released from war pressure, Northern Ireland went through a number of disturbing strikes in the course of the year. A strike of bank officials who went out on July 12 lasted until August 16. The strikers, whose issues were higher pay and speedier machinery for negotiation, were awarded compromise terms at a conference called by the Government.

When bread rationing went into effect in Britain and Northern Ireland in July the Northern Ireland delivery workers voted against cooperation. This rebellion, which affected some three-fourths of the 6 counties' population, was the only widespread resistance encountered in the United Kingdom. British troops delivered bread in Northern Ireland until the revolt subsided.

The armed services entered the situation again in November, when a bakers' strike for higher wages began on the 23rd of the month. Many army bakers were flown from England to bake bread for Northern Ireland. Considerable hardship was nevertheless caused to the public, and on that basis the bakers went back to work on December 1, with the promise that the negotiation machinery would be used immediately and that military bakers would be withdrawn as soon as possible.

Northern Ireland continued to share with Eire the problem of the outlawed Irish Republican Army (IRA) and its hunger strikers. David Fleming, 28-year-old IRA veteran held in a Belfast prison, went on two hunger strikes in 1946, one for 77 days and the other for 45. At the end of the second he was sent to Eire and forbidden by the Northern Ireland authorities to enter the country for at least 8 years. Authorities in Northern Ireland, as in Eire, defended the treatment given IRA prisoners and declined to make concessions to the demand for their release (See article on EIRE).

ALZADA COMSTOCK.

IRON AND STEEL. Inability of steel mills to meet an unprecedented peacetime demand made shortage of steel a major factor limiting production of civilian products in 1946. A month-long strike in the steel industry, and two coal strikes (see COAL) hobbled production during three distinct periods, but during the balance of the year output was close to peak wartime rates. Ingot production was 66,363,848 tons (1945: 79,701,624 tons).

Pent-up demand for automobiles, household appliances, machinery farm and railroad equipment, buildings, and industrial goods, following nearly four years of war, created such a heavy demand for steel that distribution, virtually released from government control, was informally rationed by the mills. Although steel production was greater than in any peacetime year, orders piled so high that deliveries were quoted from six months to as much as two years ahead.

Relatively few changes were required in steel facilities to shift from the products of war to those of peace. Operations were high when, on January 21, the United Steel Workers of America (CIO) declared a strike against steel-making and steel fabricating plants in which it was the recognized union bargaining representative. About 95 percent of the nation's steel capacity was shut down until a settlement was reached, effective February 15, making the strike the most far reaching in the industry's history. Major issues were wages, the union demanding 25 cents per hour increase. United States Steel Corp., bellwether of the industry in labor negotiations, offered an increase of 15 cents per hour which was rejected by the union. This impasse was broken when both the company and the union accepted settlement on the basis of 18½ cents per hour following intervention by the White House. This settlement provided a pattern, not only for the steel industry, but for many other industries in subsequent wage adjustments. It was estimated that 6,000,000 tons of steel ingot production was lost as a result of the strike.

Steel-making had not yet gained full momentum when coal was shut off by a nationwide bituminous coal mine strike starting April 1. (Coke, produced from bituminous coal, is the essential fuel and reducing agent in the reduction of iron ore to pig iron in the blast furnace.) The steel industry husbanded its coal supplies, and had cut its steelmaking operations to 44.5 percent of capacity by the end of the strike June 1.

Effects of these two strikes, and later of the railroad strikes lingered far after the period of the actual work stoppages. Technical considerations, involved in starting the production flow of steel after a shut-down, mean a lapse of three weeks or more before finished products are ready for shipment in quantity. Steel users in many cases were forced to shut their plants for lack of vital steel products, long after the strikes had ended, because of depleted inventories and failure of new stocks to arrive on schedule. A second coal strike from November 21 to December 7 caused another dip in steel output.

Scrap iron and steel remained scarce during the year, threatening to restrict the production of new metal, and in a few cases actually holding down operations. (Scrap steel is melted and refined with pig iron, or in some plants alone, to make new steel.) Some 42,000,000 long tons were used by the steel industry in 1946. This scarcity was attributable to the wartime products of the steel industry not returning as scrap, and to the small quantity scrap being generated currently by civilian manufacturing and disposal of old products.

Mining of iron ore and its shipment to the mills also was hampered by labor disputes, notably in the underground mines of upper Michigan and on ore-carrying vessels of the Great Lakes. Mine production of iron ore in the United States was approximately 72,500,000 tons (1945: 88,754,000 tons), nearly 80 percent of it from the open pit mines of the Mesaba Range in Minnesota.

No large new steel plants were constructed during the year despite the heavy demand for steel, the industry fearing that a later recession would leave it with expensive excess capacity. However, several important additions were underway to increase facilities for certain products, notably sheets for automobiles, home appliances and similar goods.

Important to rapidly expanding steel-using industries in the Far West was the sale by the government of the big Geneva, Utah, steel plant, constructed during the war, to Geneva Steel Co., a subsidiary of United States Steel Corp. At the end of the year, modifications were underway at this plant, built to serve West Coast shipbuilders, so that its products would more nearly meet the needs of civilian industry.

Production of pig iron for steel making and castings was 45,378,530 tons (1945: 53,454,872 tons). About 47,500,000 tons of finished steel products were made (1945: 62,246,468 tons). Gray iron foundries turned out about 8,900,000 tons of castings (1945: 9,578,295 tons).

Distribution of the types of steel products produced reverted during the year to the peacetime pattern prior to the outbreak of war in Europe. About 45 percent of the total tonnage was in the so-called "light" products category, used chiefly in the manufacture of consumer goods. From October, 1941, to October, 1945, light products accounted for less than 40 percent. In this group are sheet and strip steel, tin and terne plate, wire and wire products, black plate, conduit, and light tubing. Most notable was the heavy tonnage going to the construction industry, both directly and indirectly, representing about one-seventh of total consumption. The automotive industry, normally the peacetime leader, would take a smaller proportion than construction, it appeared, followed by containers, railroads, and machinery. Shipbuilding and ordnance, leading wartime consumers, required insignificant tonnages in 1946.

Alloy steel production amounted to some 6,056,438 tons, about nine percent of the total. This represents a sharp drop from 1943, when 13,116,000 tons (14.8 percent of that year's total), were produced, but is a significant increase from 1939 when 3,212,000 tons (6.1 percent) were made.

Prices of individual steel products, under Office of Price Administration control, had only one broad rise during the year. Following an increased wage level after the steel strike, a price increase averaging $5 per ton on carbon steel products was authorized on carbon steel products and alloy steels. Minor individual adjustments also were made on individual items for certain high cost producers. However, a larger proportion of high priced items were produced during the year with the result that a price average weighted according to the proportionate tonnage of each item produced showed a sharp advance. The weighted price of foundry pig iron advanced from $25.37 to $30.14 per gross ton, according to *The Iron Age*.

A comparison of finished steel composite prices, according to *The Iron Age* may be seen in the following figures (prices quoted are cents per pound): 1935: 2.06779; 1936: 2.11814; 1937: 2.53620; 1938: 2.45874; 1939: 2.31088; 1940: 2.30096; 1941: 2.30467; 1942: 2.28249; 1943: 2.29176; 1944: 2.27298; 1945: 2.42277; 1946: 2.67544. The 1935–39 average: 2.29835¢ per pound. The index varies with the base price of key steel products and also with the quarterly distribution of the various items included in the composite.

CHARLES T. POST.

ITALIAN LITERATURE. Some ray of hope, if not positive liberation, was felt in 1946 along the *via dolorosa*, tread upon by Italian letters, during the war-weary years and their aftermath. Left momentarily stunned and out of breath, our Italian literati, after long years of literary and political servility, once again began to punctuate the European and international panorama with creations such as Curzio Malaparte's stirring *Kaputt* and Alberto Moravia's brilliantly narrated *Agostino*. Italy has always had remarkable recuperative powers, to which any student of history will readily attest. And in this respect, Doctor V. Ivella, cultural attaché at the Italian Embassy, gave the compilor of this article positive assurance that the Italian Press was rising anew in a glorious pattern, that a new and potent Italic voice would be heard from the rubble heap and political decay of Europe. All this, despite the utter poverty of the Italian publishing houses, and the complete lack of paper, printing facilities, etc.

Of particular interest to professional Americans no doubt is the information that some of the time-honored publishing houses survived and were extremely active in the face of insurmountable obstacles and difficulties. For instance, Fratelli Treves continued under the aegis of Aldo Garzanti. The up-to-date and enterprising house of Mondadori of Milan set out an impressive array of publications characterized by beautiful type, printing, and formats. The reliable and scholarly house of Giuseppe Laterza of Bari, known especially for its magnificent and exhaustive collection on the History of Italian Literature, continued its work with the interest and cooperation of Benedetto Croce. The curious and ever daring publisher, Bompiani, known in America especially for his entertaining and informative *Almanacco Letterario*, among other preoccupations, entered the field of encyclopedias. Of interest, too, no doubt is the information on the continuance of some notable prewar reviews and the appearance of new ones. *Nuova Antologia*, one of the oldest and most scholarly reviews in Europe survived and is to continue. The ever-popular *L'Illustrazione Italiana*, an illustrated weekly, was available and *Leonardo*, published by Sansoni from 1932 was scheduled to reappear in 1946 as a bi-monthly under a new policy and different format. *Mercurio* under the able editorship of Alba de Céspedes came out regularly with a list of contributors to dazzle any follower of Italian Literature—Ignazio Silone of *Bread and Wine* fame, Alberto Moravia, author of the sensational *The Indifferent Ones*, Corrado Alvaro, the poets Giuseppe Ungaretti and Gabriela Mistral, Chilean, 1945 Nobel prize winner. *Mercurio* should be congratulated for its auspicious achievements, and may it have a long life indeed! *Teatro* brought out its fifth issue (June 1946) showing excellent taste in its preparation and materials. Its companion review on the theatre, *Il Dramma* continued its new series (August 1946). Among new reviews appearing on the Italian horizon may be mentioned at random: *Letteratura* issued bi-monthly; *Belfagor*, a review on the humanities, published monthly; and *Anglica*, a bi-monthly review on English and American studies under the editorship of Prof. G. N. Orsini.

Fiction-Drama. Vitaliano Brancati captured the public fancy with two widely read books, *Il vecchio con gli stivali* (Bompiani, Milan), a collection of stories, and a novel, *Don Giovanni di Sicilia* (Bompiani, Milan). *Il vecchio con gli stivali* (*The Man With the Boots*) is the title of the first story, or rather, a novelette, which deals with the life of a provincial clerk helplessly sucked into the fascist code of public behavior and listlessly going through the mock-heroic poses and antics. Facetiously treated, the novelette may be called a subtle travesty on provincial fascism in which the hero, Piscitello, is representative of thousands of other helpless individuals drawn into the party in quest of bread for their families. Brancati has shown himself master of patterns in literary malice in these two volumes (Don Giovanni in Sicilia reached its sixth edition the past season) and bids fair to become a leading humorist in Italy. Another author that came sharply to the fore in Italy and elsewhere, was Curzio Malaparte, publishing *Don Camaleo, The Novel of a Chameleon* (Vallecchi, Florence) composed of some articles and installments contributed to *La Chiosa* (1928). *Don Camaleo* is a politico-literary document on Mussolini and Fascism, couched in a symbolic style suggestive of Voltaire, Swift, and still more closely, Anatole France. And now, turning to Malaparte's *Kaputt*, widely read in Europe the past season (English version by Cesare Foligno; E. P. Dutton & Co., Inc., New York) it may be said that it will undoubtedly take its place as one of the great books to emerge from this war. In the form of memoirs, it is the faithful recording of the lurid and sadistic Nazi brutality that accompanied the early victories in 1940–1943. Alberto Moravia reappeared very much on the literary scene with three books, *Agostino, L'Epidemia,* and *Due cortigiani.* Of the three volumes, *Agostino* (Bompiani, Milan), more fittingly falls into the 1946 discussion. It is a touching psychological study of the adolescence of a thirteen-year-old boy.

In the drama, reference should be made to the new plays published in the monthly magazine *Teatro* and the bi-monthly *Il Dramma.* For example, the June issue of *Teatro* published *La Frontiera* of Leopoldo Trieste and also Jack Aldridge's *Tutto questo è finito* (*All This Is Ended*), translated by Clara Falconi. *Il Dramma* brought out a version by Paolina Vecchietti of John Steinbeck's *The Moon Is Down, La luna è tramontata* and the September issue of the same review offered Ugo Betti's *Il vento notturno* (*Nocturnal Wind*), and *Puntate su domattina,* an Italian version of William Saroyan's *The Beautiful People.*

Poetry and Varia. Two books may be singled out for cultists of Leopardi and Foscolo. Francesco Biondolillo assembled selected prose and poetry of Giacomo Leopardi, *Canti e prose scelte,* a revised and more complete anthology on the famous poet which Biondolillo prepared from his earlier opus (1924). Giuseppe Troccoli brought out a scholarly volume on *Liriche e prose* of Ugo Foscolo. Both texts having introductions, commentaries and studious annotations, are contained in the collection "Biblioteca di Classici Italiani," decorously published by Vallecchi Editore of Florence. The poet Giuseppe Ungaretti translated in his series *Vita d'un uomo* the fourth volume, *40 Sonetti di Shakespeare* (Mondadori, Milan). Ever enterprising Bompiani brought out two handsomely printed, beautifully and profusely illustrated volumes, *Enciclopedia Pratica Bompiani,* costing in the neighborhood of $30, in its convenient and handsome edition. Incidentally, some sets still survive of the monumental *Enciclopedia Italiana* (Istituto Treccani) in 37 volumes, and one supplementary. Though its price runs well into the hundreds, the encyclopedia may become a collector's item.

O. A. BONTEMPO.

ITALIAN SOMALILAND (Somalia). This is the largest, most populous and most promising (economically speaking) of the four Somalilands. It has approximately 1,200,000 inhabitants and an area of some 194,000 square miles. After the Fascist conquest of Ethiopia it was enlarged and incorporated (June, 1936) into newly created Italian East Africa. Reduced to its original boundaries, Somalia has since 1941 been under British Military Administration, and few Italians now remain in the colony.

The Italians developed several plantations along the Webi Shebeli and other streams, raising bananas, cotton, sugar, kapok, etc. The natives engage largely in the usual Somali pursuit of stock-raising, with agriculture being important only in the southern and less desertic part of the colony. The Italians constructed a railway from Mogadishu (the capital) to the Villaggio Duca degli Abruzzi (70 miles), as well as several hundred miles of good highway, and an artificial harbor at the capital where the monsoons had hitherto interfered with port operations.

Events. The disposition of Italian Somaliland, as one of the spoils of war, was under discussion throughout much of the year by the Council of Big Four Ministers, by their Deputies, and by the Luxembourg Conference of the 21 Powers which had declared war on Italy. Though much debated, the question was not settled, being postponed until 1947. The Big Four, however, accepted on July 3 the principle that Italy must be obliged to renounce sovereignty over all her colonies in Africa. (For further details see LIBYA.) On April 29 Foreign Secretary Bevin had told the Council of Ministers that all the Somalilands, including Somalia, would best be administered as an economic unit. The Ethiopian government reacted at once against any suggestion that its part of Somaliland —the Ogaden—should be detached from Ethiopia. It feared that Bevin's proposal meant the permanent loss of this area, where in fact the British Military Administration, imposed in 1941, still persisted through 1946. The Soviet trade union organ *Trud* also attacked Bevin's suggestion as involving an expansion of the British Empire, expressly forbidden in the United Nations Charter.

Late in the summer a demonstration in Mogadishu, occasioned by a wide but unfounded fear that new taxes were to be imposed, resulted in bloodshed before the misunderstanding could be cleared up.

ROBERT GALE WOOLBERT.

ITALY. A republic of southern Europe. On June 2, 1946 a referendum changed Italy from a monarchy to a republic. Provisional President: Enrico de Nicola (elected June 28, 1946). See *Events* below.

Area and Population. Italy had an area of 119,764 square miles (1936). Population (October 31, 1943): 45,637,000, compared with (1936 census) 42,993,602. There were 67,063 emigrants during 1940. Vital statistics (rate per 1,000; based on January-June, 1943): 20.5 live births, 14.2 deaths, 5.6 marriages. The infant mortality rate (deaths under one year per 1,000 live births) was 108 for 1942.

Rome, the capital, had an estimated population of 1,480,253 on March 1, 1943. Other important cities (with estimated populations on Jan. 1, 1939

exclusive of workmen and soldiers in the Dodecanese and in Africa) were: Milan, 1,205,542; Naples, 920,460; Turin, 690,015; Genoa, 654,211; Palermo, 431,666; Florence, 351,055; Bologna, 315,158; Venice, 283,926; Trieste, 258,612; Catania, 251,978; Bari, 210,777; Messina, 202,375; Verona, 166,315; Padua, 150,203; Taranto, 151,150; Leghorn, 134,545; Brescia, 134,340; Ferrara, 122,913; Reggio di Calabria, 121,876; Cagliari, 119,934; La Spezia, 119,067.

Colonial Empire. When Italy entered World War II as an Axis partner of Nazi Germany, it had an overseas empire (including Albania and Libya) of 1,279,589 square miles with an estimated population of about 14,186,400. By the end of 1943, the Italians had lost effective control of the whole of their overseas empire. British and Allied forces occupied Eritrea, Ethiopia, and Italian Somaliland in 1941 and Libya in 1942–43. During 1943 and 1944 Albania and the Italian Aegean Islands as well as the territories annexed from Yugoslavia were occupied by either Allied or German troops. After the unconditional surrender of Germany in September, 1945, all Italian territory occupied by German troops passed into Allied control.

Education and Religion. School enrollment in 1937–38 was: elementary, 5,051,306; secondary (including technical and art), 613,588; higher education (1938–39), 77,429. One out of every five adults is illiterate. According to the census of 1931 there were 41,014,096 Roman Catholics (99.6 percent), 83,618 Protestants, and 47,825 Jews.

Production. About 46.3 percent of the working population was engaged in agriculture and fishing in 1939, 30.4 percent in mining, quarrying, and industry, 8.3 percent in commerce, and 4.6 percent in transportation. The wheat harvest was estimated at 4,180,000 metric tons—the smallest crop since 1920 and roughly two-thirds of the 1944 wheat crop. The output of barley, oats, and rye in 1945 was about two-thirds of the 1944 output. The 1945 corn crop was normal at 230,000 tons. Rice produced in 1945 was estimated at 400,000 tons which was below the normal yield. Dry legumes (beans, peas, and broad beans) suffered heavily. The 1945 olive crop was estimated at 950,000, and the output of grapes, other fruits, and vegetables was good. Other important crops are sugar beets, cotton, linseed, flax, and raw silk.

Mineral and metallurgical products included petroleum, coal, pyrites, sulfur, iron ore, pig iron and ferro-alloys, steel, lead, zinc, bauxite, aluminum, quicksilver, and silver, textiles, rayon and staple fibers, refined sugar, cheese, and macaroni are important industrial products. In 1941 the output of electric current amounted to 21 billion kwh.

Foreign Trade. Publication of official trade statistics was suspended after Italy entered the war. However, unofficial figures indicated that imports in 1940 totaled 12,908,000,000 lire (9,938,000,000 in 1939) and exports 9,244,000,000 lire (8,160,000,000 in 1939). These figures exclude trade with the Italian colonies.

Finance. Budget (1944–45): revenue 12,938,000,000 lire; expenditure 129,071,000,000 lire (ordinary 33,658,000,000 lire, extraordinary 95,413,000,000 lire). War expenditure for 1944–45 (included in the foregoing figures) totaled 32,700,000,000 lire. The minister of reconstruction on October 24, 1945, summarized the financial situation of Italy as including a public debt of about 1,000 billion lire, a current budget deficit of 350 billion lire, and a total currency circulation of 350 billion lire.

Transportation. In 1941–42 there were 14,448 miles of railway lines, and 128,830 miles of roads. Shipping in control of the Italian merchant marine on Sept. 1, 1945, totaled 500,000 gross tons; in addition 300,000 tons of that sunk in Italian ports or along the Italian coast during World War II was considered salvageable. On June 10, 1940, Italian shipping totaled 3,537,000 gross tons, of which 900,000 tons were in enemy and neutral ports.

Events: Via Dolorosa. Defeated and impoverished Italy in 1946 ceased to be a Kingdom and became a Republic. It also acquired, through protracted negotiations among the victors, a peace treaty, concluded in all its essentials but not yet signed at the close of the year. For the rest, its people experienced stark want, inflation, black markets, exploitation at home, humiliation abroad, and numerous other evils spawned by the black past and nourished by the gray present.

Fascism: Old Style. "Il Duce is again among us. His mortal remains have been taken in custody by the Democratic Fascist Party." So read the letter of April 22, 1946, left beside the unmarked pauper's grave in Milan's Maggiore Cemetery where the bullet-riddled, mutilated body of Benito Mussolini had been interred on April 30, 1945. The cadaver was gone. The identity of the thieves was never established. On July 25, third anniversary of Mussolini's fall from power, all his properties were confiscated by court order on behalf of the Italian people. Under a recent amnesty his nephew, Vito, was released from a Naples jail where he was serving a 12-year term. On August 12, the body of Il Duce was reported by the Milan police to have been found in a trunk in the Pavia Monastery. One of the three thieves, said Father Alberto Parini, had confessed to the theft and had authorized him to disclose the secret. The body was believed to have been reburied in Milan in sacred ground and in a place unknown to the public.

The ghost of Fascism still walked. Reports from Rome in March held that a well-organized and armed Fascist underground existed in the capital, directed by Carlo Scorza, former Secretary of the Party. It was alleged to be subsidized from Franco Spain and to be protected by certain elements in the Catholic clergy. At the end of March unidentified aircraft were reported to be dropping small radio transmitters to obscure conspirators in central Italy. Five Fascists seized the station of the Rome radio on May 1 and broadcast the Fascist anthem, "Giovanezza." On September 3 the Paris Peace Conference accepted a recommendation of its military commission that Italian Fascist militiamen and members of Mussolini's "Republican" forces be permitted to serve as officers in the new Italian armed forces if "exonerated by the appropriate body under Italian law." Early in October crowds giving Fascist salutes and shouting "Duce! Duce!" broke up a demonstration in Gorizia by the Italian-Slovene anti-Fascist Union.

On November 18 Col. Gen. Eberhard von Mackensen and Lt. Gen. Kurt Maelzer went on trial before a British tribunal in Rome for their part in the Ardentine Caves massacre of March 24, 1944, when 335 Italian hostages were slaughtered in reprisal for the killing of 32 German soldiers by a bomb attack in Rome. Both pleaded "not guilty," but were sentenced on November 30 to death by shooting, to the general satisfaction of the Italian populace.

Fascism: New Style. On January 2, 1946, the public prosecutor announced the seizure of Guglielmo Giannini's weekly, *L'Uomo Qualunque* for an editorial which declared: "If you can get away with it, split the head of anyone who calls you a Fascist." Giannini, a former member of the Fascist

party, continued to denounce "politicians" and agitate for an "Administrative State" and a "United States of Europe." His efforts to convert his movement into a political party fell short of his predictions, but netted his candidates a million votes in the election of June (see below). His cause was gaining new adherents at the end of the year.

The Misery of the Impotent. Fanaticism and violence, in Italy as everywhere, are the inevitable fruits of mass misery and frustration. Economic conditions reduced multitudes to desperation. The Rome headquarters of UNRRA asserted on February 28: "It is not an exaggeration to say that there are thousands upon thousands of people living near the edge of starvation in Italy"—where recent reductions in rations had left the populace with an average of 650 calories daily. While the wealthy sported motor cars and lived well on the black market, the poor starved. By summer prices had risen to a point at which famine seemed inevitable for those in the lower income brackets. On the black market the lira reached a low point of 560 to the dollar by September 6, as compared to the official rate of 222 set early in the year. By mid-November the black market rate was 583 and by early December it had reached 850.

The intolerable hardships of daily life evoked reactions of violence from some of the victims. In early March unemployed farm workers in Andria, near Bari, revolted against the authorities and the landowners. Six were slain by the Carabinieri before "order" was restored. Early July saw riots in Rome, ostensibly in protest against the loss of Trieste. Late in July more rioting broke out in the south, while all oil workers struck and Milan and Turin were gripped by general strikes. Armed workers seized factories to enforce demands for wage increases. On July 19 a 24-hour strike of all printers prevented the publication of all newspapers save the Vatican *L'Osservatore Romano*. In August Sicilian peasants, protesting grain requisitions, engaged the police in battle with numerous casualties. A mob of workers in Rome tried to storm the Ministry of the Interior on October 9, with two killed and 141 wounded. On October 31 a bomb blast wrecked a wing of the British Embassy. Further disorders were in progress in various parts of the country at the end of the year.

That more violence did not occur was attributable to the apathy, rather than to the moderation, of the hungry. Socialist leader Pietro Nenni declared in Leghorn on November 23 that civil war or dictatorship would be the result if the Socialist and Communist parties together did not conquer power in the near future. On December 1 the Right-wing Christian Democrats, led by Count Stefano Jacini, demanded the end of the coalition government and a crusade against the Communist menace. Four days later police authorities announced that the Soviet Union was supporting a secret organization ("Troika") of 280,000 "well-armed extremists," designed to perpetrate acts of terrorism and sabotage. The Cabinet later declared the report false and apologized to Moscow. But with millions jobless and starving or existing on foreign relief, incentives for the discharge of aggressions against public symbols of authority were almost irresistible.

New Republic. During the first half of 1946 Italian politics revolved around the fate of the Monarchy. Prince Humbert, "Lieutenant General of the Realm," was reported early in the year to favor a referendum to decide the "institutional" issue. Early in April Count Carlo Sforza, irreconcilable anti-monarchist, declared that "a republic, voted by an overwhelming majority of my compatriots, can bring prosperity and social order to Italy, while the monarchy, with the terrific burden of its long complicity with Fascism and Nazism, can only follow the path which brought the Bourbon monarchy in Spain to so many disasters." On April 27 the Congress of Premier Alcide de Gasperi's Christian Democratic Party, strongly Catholic but little disposed to follow the Pope in political matters, voted three to one in favor of a republic.

King Victor Emmanuel finally abdicated on May 9 in favor of Humbert and, after a reign of 46 years, sailed away to Egypt. While Rightists and Leftists campaigned violently in preparation for the referendum of June 2, Gasperi remained noncommittal. The voters were asked to express their preferences regarding the structure of the state and to elect deputies to the Constituent Assembly. The balloting of June 2 resulted in 10,717,923 votes for the Monarchy and 12,719,284 votes for a Republic. Humbert hesitated but finally departed for Spain on June 13, after the Cabinet had proclaimed the transfer of his powers to the Premier. "With my soul full of grief, but with the serene consciousness that I have made every effort to comply with my duties, I leave my country," he declared, at the same time accusing the Government of "illegalities" in a statement which the Cabinet described as "a painful document based on falsehoods."

The Republic was officially proclaimed on June 10. On the 28th the Constituent Assembly elected as Provisional President Enrico de Nicola, sixty-eight-year old Neapolitan Liberal. He was supported by the Christian Democrats, Socialists, and Communists, after Vittorio Orlando, originally favored by the Christian Democrats, was opposed by the two Marxist parties and Benedetto Croce, favored by the Left, was vetoed by the Christian Democrats. The task of preparing a republican Constitution was not to be completed until sometime in 1947.

The Political Scene. The coalition Cabinet formed by Alcide de Gasperi on November 30, 1945, (see YEAR BOOK for 1945, page 293) continued to hold office throughout the year with various changes of personnel. In municipal elections in March the Left parties scored notable gains, despite Rightist expectations that Italian women (voting for the first time) would choose conservative candidates. In the election of June 2 the various parties elected deputies in the following numbers:

Christian Democrats	207
Socialists	115
Communists	104
National Democratic Union	41
L'Uomo Qualunque	30
Republicans	23
National Bloc of Freedom	16
Action Party	7

One curiosity of the election was the winning of 68,000 popular votes by the "Unionist" party, favoring the admission of Italy as a state to the U.S.A. The Christian Democrats polled almost 8,000,000 votes, the Socialists 4,600,000 and the Communists 4,200,000. Three of the six parties of the erstwhile Committee of National Liberation—i.e. the Liberals, the Labor Democrats, and the Actionists—virtually disappeared. The Republicans made appreciable gains. In Italy, as in France, political power was henceforth to be shared by liberal Catholics, Socialists and Communists.

After much friction and jockeying, leaders of these groups reached an agreement on July 6 for limited wage increases and for raising public rev-

enues through an internal loan, a capital levy, and confiscation of war profits. On July 12 Gasperi formed a new four-party coalition Cabinet:

Prime Minister, Minister of the Interior and Temporary Foreign Minister—Dr. Alcide de Gasperi, Christian Democrat.
Minister Without Portfolio, Deputy Prime Minister and Eventual Foreign Minister—Pietro Nenni, Socialist.
Minister Without Portfolio—Randolfo Pacciardi, Republican.
Minister of Justice—Fausto Gullo, Communist
Minister of the Treasury—Prof. Epicarmo Corbino, Independent.
Minister of Finance—Mauro Scoccimarro, Communist.
Minister of War—Cipriano Facchinetti, Republican.
Minister of Public Works—Giuseppe Romita, Socialist.
Minister of Transport—Giacomo Ferrari, Communist.
Minister of Industry and Commerce—Rodolfo Morandi, Socialist.
Minister of Foreign Trade—Pietro Campilli, Christian Democrat.
Minister of Post-War Assistance—Emilio Sereni, Communist.
Minister of Public Instruction—Guido Gonnella, Christian Democrat.

Despite angry exchanges between the Premier and Communist spokesmen regarding strikes, Soviet influence and the role of the Church, the Cabinet was endorsed by the Assembly on July 25 by a vote of 388 to 53, with *L'Uomo Qualunque*, the monarchists and a number of Sicilian separatists in the opposition. Communist attacks upon Gasperi's foreign policy followed his return from Paris on August 23, but the coalition remained intact. On September 22 Gasperi resigned as Secretary General of the Christian Democrats and was at once elected to the party presidency. Don Luigi Sturzo, seventy-four-year old liberal Catholic, anti-Fascist and founder of the pre-Fascist Populist party, returned to Italy in September after an exile of twenty-two years but assumed no active political role. The Liberal (i.e. conservative) and Democratic (i.e. monarchist) parties coalesced in a Right-wing "Liberal" party in September and wooed Giannini's "Common Man" group.

Gasperi's position was weakened in October by criticisms leveled against him by the Left wing of his own party as the Right wing flirted with extreme conservatives. On October 19 Socialist Pietro Nenni became Foreign Minister in accordance with the agreement of July. A week later the Socialists and Communists concluded a new "unity of action" pact avowedly aimed at the conquest of power by the working class. Both parties scored notable gains in the municipal elections of November, winning joint majorities in Rome, Turin, Genoa, Florence and Naples. In Leghorn the Communists won a clear majority. At the same time "Common Man" candidates emerged first in Palermo, second in Rome and third in Naples, while the Christian Democrats lost ground everywhere. These developments would doubtless have precipitated a Cabinet crisis, since Communists and Christian Democrats were now at sword's points, save that neither party wished to assume responsibility for jeopardizing the success of the reconstruction loan. At year's end the increasingly precarious coalition was still being maintained.

The Papacy in Politics. In view of the ideological and institutional preferences of the Vatican, the trends of Italian politics throughout the year were deplored by the Holy See. At the beginning of Lent, Pope Pius XII denied the right of the State to bar priests from advising parishioners in political matters. At Easter he urged the Catholic Action Youth to fight as never before against "anti-Christian" forces in public life. On May 12 he told 40,000 young women at St. Peter's that it was their "sacred duty" to vote only for parties pledged to "respect the rights of God and of religion." He also warned against "State absolutism" and "wreckers of Christian civilization." The defeat of the monarchy and the successes of the Marxist parties were serious rebuffs to Papal hopes.

Under the Concordat of 1929 the Vatican was pledged not to interfere in internal Italian politics. Numerous acts and utterances regarded by critics as violation of this promise provoked a wave of anti-clericalism throughout the country in the autumn. Crowds demonstrated in Rome in favor of divorce laws, hitherto unknown in Italy. The anti-clerical weekly, *Don Basilio*, gained a growing audience, despite Papal excommunication of its editors and publishers, who declared that they went out "with head held high from the community in which Mussolini and Hitler were considered worthy men." In mid-December the Vatican journal, *L'Osservatore Romano* asserted that the various anti-clerical papers, some of which had become increasingly abusive, were inciting to violence against priests. On December 23 a court in Rome sentenced Ruggero Maccari, editor of *Don Basilio*, to two years in prison for having slandered the clergy and "offended the religion of the State." He appealed the decision. Mounting bitterness in the relations between Left leaders and the Catholic hierarchy threatened new conflicts during 1947.

Peace Treaty. The prolonged process of treaty-drafting, with Italy not a "co-belligerent" participant but a victim of bargaining among the Super-Powers, brought no comfort to Italians of any political view. A telegram of January 15 to the U.N. General Assembly expressing hope that Italy might soon join the "international community" brought no response save acknowledgment and publication in the Assembly's Journal. While expressing willingness to cede the Dodecanese Islands to Greece, Gasperi pleaded for Italian retention of Trieste and the African colonies.

On May 15 the Foreign Ministers accepted an American proposal for a modified armistice which replaced the Allied Control Commission by a supervisory commission, limited to military affairs, and restored Italian sovereignty in all non-military fields. During discussions of this change of status, rumors circulated regarding "secret annexes" to the new terms whereby the U.S.S.R., in return for alleged Anglo-American assurances of acquiescence in Soviet hegemony in Rumania and Bulgaria, was said to have agreed to British control of Italian trade and commerce. The Communist organ, *L'Unita*, charged on June 16 that London had submitted a proposed "military agreement" by which Italy would virtually become a British protectorate. These stories were not substantiated. But it was clear that London and Washington would have a major voice in Italy's fate if they were prepared to compromise their differences with Moscow in other areas.

During the spring, as the Council of Foreign Ministers hammered out a draft treaty, Italian politicians and patriots of diverse orientations voiced their hopes and pleas that the new Republic would not be stripped of Trieste and the colonies. As for the Adriatic port city, which was Italian as to its urban population and Yugoslav as to its hinterland, the insistence of Moscow on its annexation by Yugoslavia and the determination of London and Washington that it should remain Italian produced a deadlock. On June 29 Foreign Minister Bidault of France first proposed the final solution: an autonomous territory of Trieste, administered by the Big Four plus Italy and Yugoslavia. Gasperi vainly suggested a plebiscite.

Vae Victis. The draft of July 26, consisting of 78 articles and 9 annexes (text in *New York Times,* July 27, 1946) contemplated acceptance of the "French Line" as the Italian-Yugoslav frontier north of Trieste and internationalization of the port and its environs It also provided for the cession of the Dodecanese to Greece, of several Adriatic islands to Yugoslavia, and of small border areas near Briga, Tenda, Mt. Thabor, Mt. Cenis and the Little St. Bernard Pass to France. Libya, Eritrea and Somaliland were to be surrendered, but their status would not be determined for a year, during which time they would be administered by the occupant (Great Britain). Reparations of $100,000,000, payable over seven years, were provided for the U.S.S.R., with other reparations to be fixed later. The Italian Army was to be limited to a maximum of 250,000 men and 200 tanks; the Air Force to 25,000 men, 200 fighter and reconnaissance planes and 150 transport and liaison planes; and the Navy to 2 battleships, 4 cruisers, 4 destroyers, 16 torpedo boats, 20 corvettes and 22,500 men, with other units to be turned over to the Big Four.

Resentment and despair swept over Italy with the announcement of these terms. Premier Gasperi arrived in Paris on August 7 and on the 10th delivered a moving address to the Peace Conference pleading for modifications. A series of memoranda supported his appeal. The net result, however, was negligible. On October 23 the Christian Democratic deputies decided to reject the treaty. Only the Communists supported ratification, with the Socialists divided and other parties opposed. In early November Palmiro Togliatti, Communist leader, went to Belgrade and returned with a proposal from Tito that Italy retain Trieste and cede Gorizia to Yugoslavia instead This possibility of a bilateral settlement attracted lively interest, but came to nothing after a month of discussion. The New York meeting of the Council of Foreign Ministers substantially confirmed the terms already agreed upon and provided that the treaty (which would go into effect on ratification by the Big Four, regardless of Italian acceptance or rejection) should be signed in February, 1947. The details of the final version had not been revealed by the end of 1946.

Relations with the U.S. American policy during the complex negotiations of the peace settlement brought only slight comfort to Italian patriots. The original American plan for a U.N. trusteeship over all the Italian colonies was abandoned in favor of postponement of the whole issue. In mid-February an accord was signed between the Italian Air Ministry and Transcontinental and Western Air Lines (U S) by which a joint Italian-American company would control a network of 14 civil airlines covering all Italy. British resentment was registered at this American encroachment upon what was regarded as a British market. The State Department declined to aid TWA. Completion of the arrangements depended upon the final peace settlement.

On July 12 President Truman named James C. Dunn, Assistant Secretary of State, as Ambassador to Italy to succeed Alexander C. Kirk. The United States vigorously opposed any reparations settlement which would eventuate in American aid to Italy being funneled off to other lands. On September 9 a contract was signed in Rome for the purchase by the Italian government for $165,000,000 of surplus civilian property of the United States Army, valued at $565,000,000. The terms contemplated payment spread over 20 years, beginning in January, 1951. On October 12 Byrnes announced that the United States would transfer $50,000,000 to the Italian Government at once as reimbursement for lira furnished U.S. forces in Italy. Premier Gasperi, who declared in August that Italy would face starvation in 1947 without foreign credits of $880,000,000, prepared at the end of December to come to Washington to seek a loan. He indicated that his country would need $4 billion during the next four years.

The dusk, like the dawn, of the year 1946 in Italy was dark with fears for the future, with riots by the unemployed and hungry, and with gloom, dissension and doubt. American largess might relieve immediate needs. It would also provoke Leftist accusations of exploitation and enslavement. In international, as in interpersonal relations, gratitude is displayed only by givers to takers, never by takers to givers and still less by debtors to creditors. Years of want, suffering and toil would inevitably elapse before the Italian Republic could hope for a life of freedom and plenty for its people.

See ALBANIA, FRANCE, GREECE, PARIS PEACE CONFERENCE, VATICAN CITY, YUGOSLAVIA.

FREDERICK L. SCHUMAN.

JALUIT. The chief island (169° 42′ E. and 5° 48′ N) in the Marshall group of the Japanese Pacific Islands (which see). Area, 8 square miles. Civil population (1938), 10,546 (10,038 natives and 504 Japanese). Copra was the principal export. The island has been under the control of United States armed forces since the defeat of Japan in 1945.

On November 6, 1946, the United States requested that the island be placed under United Nations trusteeship with the United States as administering authority.

JAMES FOUNDATION OF NEW YORK, INC., was incorporated August 23, 1941, under the Membership Corporation Law of the State of New York, pursuant to the provisions of the will of the late Arthur Curtiss James who died on June 4, 1941. The Foundation will receive, upon the conclusion of the executorial administration of the estate of Arthur Curtiss James, the residuary estate, the amount of which is not yet determined. The income of the funds received, and ultimately the principal of the funds, will be distributed through organized religious, educational, and other charitable corporations. President: William W. Carman. Trustees: William W. Carman, Robert E. Coulson, Williamson Pell, and John K. Olyphant, Jr. Office: 39 East 69th Street, New York 21, New York.

JAN MAYEN. An arctic island between Greenland and northern Norway, 220 miles north-northeast of Iceland. Area, 144 square miles It is mountainous, Mt. Beerenberg in the north being 8,350 feet high. A meteorological station was established on the island by Norwegians in 1921. The island was formally annexed by Norway on February 27, 1930.

JAPAN. A country of Far Eastern Asia, comprising four main islands (Hokkaido, Honshu, Kyushu, and Shikoku) and a number of smaller islands. Japan and her overseas possessions and conquests passed under the control of Allied armed forces following the surrender of Japan in 1945. Territories which Japan relinquished included Formosa, Japanese Pacific Islands, Korea, Kuriles, Kwantung, Manchukuo, and the southern half of Sakhalin (Karafuto). Emperor of Japan: Hirohito (ascended the throne, Dec. 25, 1926).

Area and Population. Japan proper had an area of 143,667 square miles. The census of April 26, 1946

showed a population of 73,110,995, with 34,903,265 males and 38,207,730 females. Chief cities (1946 census): Tokyo (capital), 3,442,106; Osaka, 1,293,501; Nagoya, 719,382; Yokohama, 706,557; Kobe, 443,344; Fukuoka, 288,794; Sendai, 255,036; Yokosuka, 249,702; Sapporo, 227,323; Kawasaki, 210,157.

Events, 1946. The intricately complex problem of establishing Japan as a peaceful nation and building it into a structure that would occupy its proper place in a world of nations fell mostly to the United States. Japan saw the edifice of her old life, built on the practices of hundreds of years, crumble before the decisions and decrees of General Douglas A. MacArthur, Supreme Commander for the Allied Powers (SCAP), and found herself in 1946 trying to grope a way through the rubble that once composed the old world of nationalism, imperialism, fuedal economy, industrial monopoly, and state religion.

On the first day of the year, Emperor Hirohito delivered an Imperial Rescript containing a profound religious and political transformation for the Japanese people. In a document unparalleled in Japanese history, the Emperor told his people that his divinity is a "false conception" based on ancient myths and legends that are without validity in fact and that the corollary Shinto doctrine that "the Japanese people are superior to other races and fated to rule the world" is equally misconceived. Parts of the Rescript were devoted to two pledges: first, he reaffirmed the charter of the Emperor Meiji, establishing free assembly, forming government according to public opinion, and providing justice and equity for the common people as well as the governing class; second, he established a human relationship (and identified himself with the people) by saying "we stand by the people and we wish always to share with them their moments of joy and sorrow." From his subjects the Emperor asked for unity and work. "If the nation is firmly united in its resolve to face the present ordeal and seek civilization constantly in peace," the Rescript read, "a bright future will undoubtedly be ours."

The precursor to the Emperor's voluntary abdication of divinity was delivered two weeks earlier by General MacArthur who ordered the disestablishment of the Shinto religion. Teaching Emperor divinity and racial superiority, Shintoism was used as the medium to rationalize conquest and imperialism. The MacArthur decree removed government-financed support from Shintoism, forbade the teaching of the religion in schools, forbade the use of any religion to teach the notion of Emperor divinity, and placed Shintoism on the level with other religions as a sect.

During the first four months of the occupation at the end of 1945, war criminals had, for the most part, been limited to top members of the military and political figures in the highest executive positions. Behind this relatively small clique, however, were broader groups of the people who actively supported the Japanese war effort as members of the principal wartime totalitarian organizations. These were the influential government officials, the political speakers and writers, the members of terrorist or secret patriotic societies and the major and minor heads of the Imperial Rule Assistance Association and the Imperial Rule Political Society. In anticipation of the forthcoming general elections in April, General MacArthur ordered the Japanese Government on January 4 to perform two wide reforms; one, dissolve permanently twenty-seven military and political movements identified with the Japanese military expansions and submit a list of the officers of such organizations back to the China Incident of July, 1937; and two, remove summarily and exclude from public office and government service all persons who were officers of these organizations. Included in these categories, "not entitled to a hearing on other procedures precedent to removal," were all army and navy officers and enlisted men, civilian employees, military police of the notorious *Kempeitai*, and officials and higher employees of twenty companies that financed the colonization and development of Japanese-occupied territories.

The impact of the two directives was felt through all strata of the Japanese Government. The Ministry of Premier Baron Kijuro Shidehara narrowly avoided collapse as five members, included in the scope of the purge, resigned. Rather than precipitate another crisis and become the fourth cabinet to dissolve, the Shidehara Cabinet decided to reform and remain in office, pending the general elections. In the lower administrative structure of the Government, nearly half of the prefectural governors and bureau heads were forced of resign. After several members of the Imperial Household were affected by the decrees, the liberals of Japan were given a measure of justice in the appointment of Dr. Tatsukichi Minobe to the Japanese Imperial Privy Council, the highest consultative body to the Emperor. Minobe, recognized as Japan's foremost constitutional scholar, was driven out of academic life in disgrace as an archenemy of the military caste's totalitarian ideology in 1934.

The job of screening candidates and determining the eligibles for public office under the MacArthur directives was retained in the hands of the Shidehara Government. By February 10 the effect of the purge was chaotic; the Shidehara Government gave the directives sweeping interpretations and disqualified nine-tenths of the Imperial Diet from holding office. In early March the purge spread to intellectuals who condoned or propagandized Japan's expansionist policies.

After tearing down the nationalistic political fabric of Japan, General MacArthur turned to a phase of national law and on February 19 placed Japan under a regime of "extraterritoriality," which removed nationals of the United Nations from the jurisdiction of the Japanese courts and the Japanese police, and placed them under the authority of the Allied powers. This move recalled the era before 1899 when Japan was emerging from her strict isolationalism and her laws did not conform to the traditions and uses of Occidental jurisprudence. After the 1899 Japanese victory over China, she attained full sovereignty by a vigorous campaign against extraterritoriality and the adoption of a legal code based on European models.

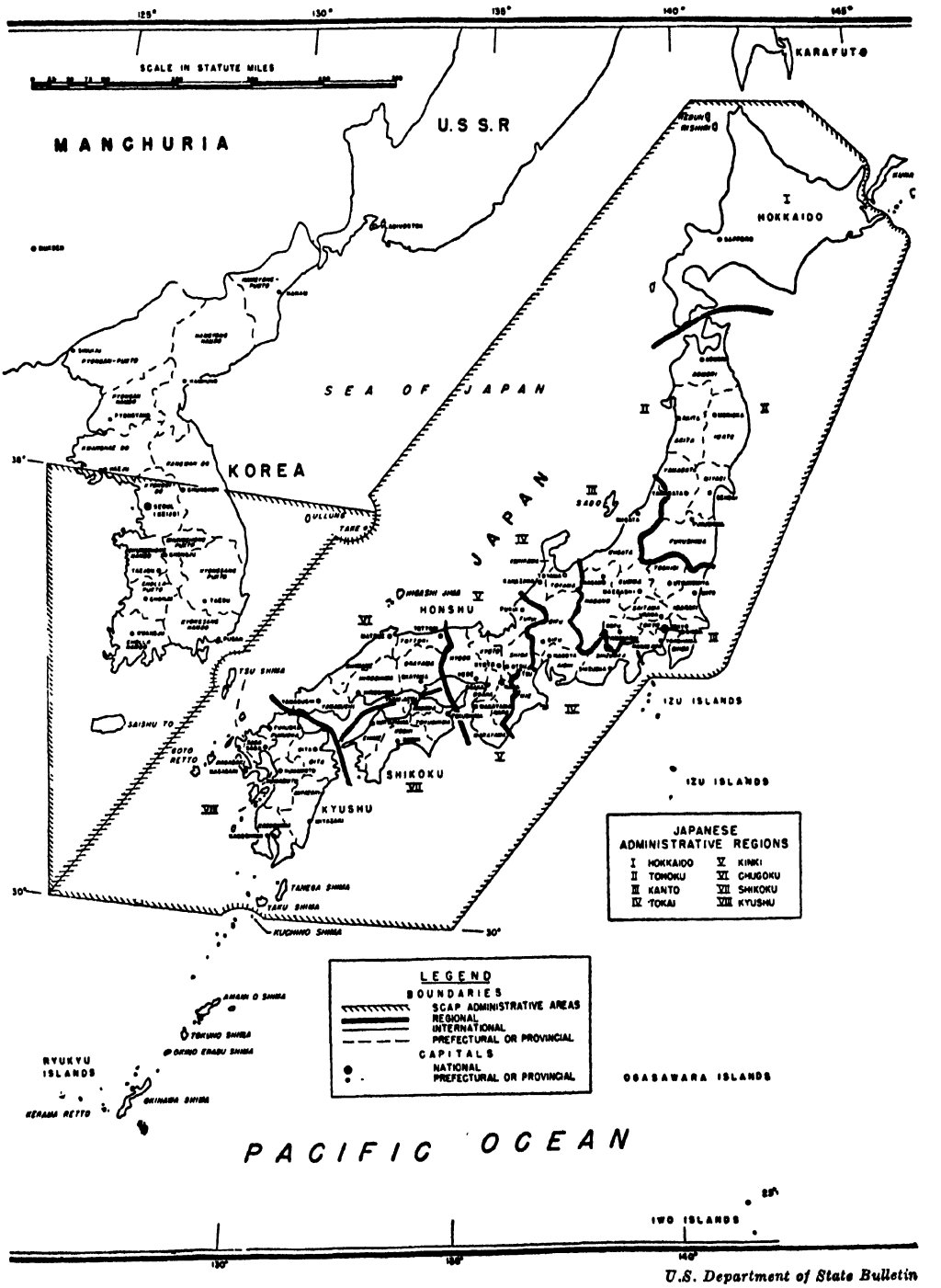
General MacArthur's efforts to mould a new Japanese nation by removing the centuries-old imperialistic, autocratic, and feudalistic system were crystallized in the draft of a new constitution, presented to the public on March 6 by the Shidehara Government with the full approval of the Supreme Allied Commander. The new constitution, framed after close consultation with Allied military authorities and officially endorsed by the Emperor in an imperial rescript, was to be submitted to the new Diet after the April elections.

The proposed constitution, virtually a bloodless revolution in itself, replaced the Emperor Meiji constitution handed down in 1899. The two outstanding clauses of the constitution embodied a renunciation of war and stripped the Emperor of all sovereign rights and governmental power.

"War, as the soverign right of the nation, and the threat or use of force, is forever renounced as a means of dealing with other nations. The maintenance of land, sea, and air forces, as well as other war potential, will never be authorized. The right of belligerency of state will never be recognized.

"The Emperor shall be the symbol of the state and of the unity of the people, deriving his position from the sovereign will of the people." As regards the Emperor's old power to legislate, the Constitution read, "this Constitution shall be the supreme law of the state and no imperial rescript contrary to the provisions thereof shall have legal force or validity.

"The advice and approval of the Cabinet shall be required for all acts of the Emperor in matters of state and * * * be responsible therefor."



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To reinforce its renunciation of war, the preamble declared, "We have determined to rely for our security and survival upon the justice and good faith of the peace-loving peoples of the world. We desire to occupy an honored place in an international society designed and dedicated to the preservation of peace."

With many innovations borrowed from the United States, Great Britain, and France, the constitution created a parliamentary regime in which the Diet was the highest organ of state power and the sole "law-making authority." The abolition of state Shinto was legalized and the State was forbidden to engage in religious activities, thus further removing the State divinity concept. Another vestige of the old system was dropped in the abolition of the oligarchical House of Peers, which was replaced by a House of Councilors, subordinate to the lower house and elected by the people. The judicial system was revamped and provided with a powerful Supreme Court, vested with the "whole judicial power," and appointed by the cabinet rather than by the executive branch as in the United States system.

The Constitution established a revolutionary "Bill of Rights," based on the United States model, which instituted public freedoms unique in Japanese history and contrary to traditional Oriental concepts of family behavior. Included in the provisions were equal rights for husband and wife and marriage by mutual consent of both sexes, the abolition of involuntary servitude, freedom of thought and conscience, the prohibition of cruel punishment, the use of search and arrest warrants, speedy trials, and the right of the individual not to be required to testify against himself.

Reaction to the constitution was generally favorable in Japan with the leading political parties—Liberal, Progressive, Cooperative—favoring the draft. The Socialist party refrained from comment, while the Communist party objected to the fact that the draft had been drawn up by the Shidehara cabinet "which made a desperate effort to preserve the sovereignty of the Emperor. . . . and the Tenno system." The New York *Times* felt that the constitution struck a too Utopian note when it declared that Japan will rely for her security "upon the good faith of the peace-loving peoples of the world." Additional criticism considered the constitution rather premature and contended that a constitution should be the product of many years experience in the field of self-government.

Japan approached the April 10 general election with little friction. On April 1 General MacArthur declined the suggestions of the Far Eastern Commission that the projected elections be delayed on the grounds that the war-mongering, reactionary element of Japanese politics had not been fully disorganized and completely banned from public office. He stated that the Diet still contained a Tojo taint and that it was necessary to elect a more representative body. The New Zealand and Soviet Union members of the Council, questioning the advisability of immediate elections, felt that the newly-arrived moderates would have little chance against the firmly entrenched old-line parties. Furthermore, the serious transformation occurring in Japan's economic structure made it difficult, they pointed out, to obtain an authoritative and intelligent expression of the desires of the Japanese people on their political future.

In Japan's freest election, in which the voting age was reduced from 25 to 21 and women were enfranchised for the first time in Japan's history, the Rightists won a comfortable victory. The leading parties involved in the election were the Progressives, the most conservative, led by Shidehara, who accepted the party's helm just before election; the Liberals, another strongly conservative faction, led by Ichiro Hatoyama, a member of the Diet and former Minister of Education; the Social Democrats, weakly moderate groups, whose ranks were split by dissenting cliques; and the Communists, the smallest of the large party group, who actively campaigned against Shidehara.

The results of the election showed that an estimated 26,000,000 voters passed control of the first postwar Japanese Parliament into the hand of the conservatives.

The election returns failed to give any party a majority, the Right wing dominated the 466-seat Parliament with the Liberals capturing 140 seats, the Progressives 93, the Social Democrats 92, the Cooperatives 14, the Communists 5, independent candidates 82, and various smaller parties 38, while two seats remained vacant because no candidate polled a minimum total. One third of the votes were cast by women. Thirty-eight women of a total 80 candidates won seats. At the end of the 90th Session of the Diet on October 12, the alignment was: Liberals 148, Progressives 110, Social Democrats 96, Cooperative Democrats 45, New Peoples 35, Independents 23, Communists 6.

With no party controlling a clear majority in the new Diet, Baron Kijuro Shidehara announced his intention to remain Premier until the draft of the constitution was ratified The move immediately met the opposition of Liberals and Socialists, who refused to cooperate with the Shidehara regime, and as opposition grew, Baron Shidehara and his cabinet resigned en bloc on April 22. With the Shidehara resignation, Ichiro Hatoyama, president of the Liberal party, came to the fore as the leading candidate for Premier. The Soviet members of the Allied Council protested the likelihood of Hatoyama's premiership because of his early-war admiration for Hitler and Mussolini and his active support of the Japanese war effort. When it grew increasingly obvious that Hatoyama would succeed to the premiership, General MacArthur on May 3 banned him from taking a seat on the Imperial Diet, under the purge directive of January 4. During the turmoil that followed, Tetsuo Katoyama, Socialist leader and former organizer of the Farmers' Union in prewar Japan, was requested to form a coalition Cabinet, but was unable to surmount the obstacle of Liberal and Progressive opposition. Finally, the situation was resolved on May 15 when Shigeru Yoshida, the Foreign Minister and former Ambassador to London, accepted the leadership of the Liberal party. After receiving instructions on the next day from the Emperor to form a cabinet, Yoshida drew up an essentially conservative ministry, consisting of the following:

Premier and Foreign Minister, Shigeru Yoshida, Liberal; *Home Minister,* Seija Omura, Non-partisan; *Finance,* Tanzan Ishibashi, Liberal; *Justice,* Tokutaru Kumura, Non-partisan; *Education,* Kotaro Tanaka, Non-partisan; *Welfare,* Yoshinari Kawai, Non-partisan; *Agriculture,* Hiroo Wada, Non-partisan; *Commerce,* Jiro Hoshijima, Liberal; *Transport,* Tsunejiro Hiratsuka, Liberal.

Ministers Kimura and Wada replaced the initial selection of Chuzo Iwata and Shiroshi Nasu, respectively, who were unacceptable to Allied headquarters.

Until December 1945 the occupation of Japan was exclusively an American affair with General MacArthur acting as the supreme authority over the Japanese people. In the face of the demands

of other nations for a voice in the occupation of Japan, the Big Three conference at Moscow modified the powers of the Supreme Commander and created two new organizations, the Far Eastern Commission and the Allied Council. Neither of these bodies, however, infringed upon the "sole executive authority," General MacArthur, thus insuring the United States of its pre-eminent position in Japanese affairs. The Far Eastern Commission, composed of eleven members, with the United States, Russia, China, and Great Britain holding veto power, was created to formulate policy for the Allied government of Japan, while the Allied Four Power Council, made up of the veto-power nations of the Far Eastern Commission, was created to supervise execution of the policy.

After its organization in Tokyo on April 5, disagreement within the Council arose in mid-April as to its authority in relation to General MacArthur's executive powers. General MacArthur emphasized his position in a notice to the Council that he considered the Council's function purely advisory. Furthermore, he refused two Soviet requests for copies of all occupation orders since the time of the surrender and submission of future directives for Council inspection seven days prior to their publication. The Council had no authority over matters prior to its formation, General MacArthur stated, and as to the latter request, the Council would be given 48-hour notice of directives, because a longer period would create a prejudicial time lag in occupation duties. On April 21 General MacArthur appointed George Atcheson, Jr., of the United States Department of State, chairman of the Allied Council.

In response to the MacArthur 48-hour edict, Lt. Gen. Kuzma Derevyanko, Soviet member of the Council, declared on May 15 that the Supreme Commander failed to carry out the terms of the Moscow Conference Mr. Atcheson replied that the council's duties were merely consultive and that any change in the system constituted unjustifiable interference. Later in May General MacArthur apparently changed his attitude toward the Council and sought their advice on three pressing problems; land reform, disposition of government property and organized labor. Indication was made by Mr. Atcheson that General MacArthur would refer numerous other matters to the Council By June 6 the Council agenda included the additional items of the extension of Japanese fishing grounds, the operation of the merchant marine and the dissolution of the Japanese Lumber Company.

The long-standing questions of Japanese reparations divided the Allies; the United States fostered the attitude that democratization of Japan would be seriously jeopardized if the people were deprived of economic hope, while Australia, New Zealand, China, and the U.S.S.R. claimed the need for immediate payment of Japan's reparation bill, especially in the form of textile machinery and other equipment to rebuild their own war-disrupted peacetime industries. On May 13 Edwin W. Pauley, President Truman's reparations representative, said that textile machinery would not be included in reparations payment and the Far Eastern Commission thereupon drew up interim reparation policies, limiting reparation claims to army and navy arsenals, the aircraft industries, and the light metal industries, with the exception of special purpose machinery and equipment essential to Japan's peacetime economy. Earlier in the year General MacArthur took control of 394 Japanese aircraft plants, army and navy arsenals, and war laboratories for possible reparation payments.

Mr. Pauley reiterated the United States reparations policy on May 11, declaring that strenuous resistance would be made to efforts by any ally to obtain as reparations the manufacturing plants needed by Japan to produce exports for the payment of food. Specific sources of reparations were labelled by General MacArthur in a sweeping directive in August that set aside 505 of Japan's largest and most modern plants in eight basic industrial branches as potential material. Together with the previous directive naming war plants as possible sources of reparations, the decrees placed approximately one-third of Japan's industries open to seizure.

If the Allies were to take the earmarked plants when the final reparations bill was submitted, Japan's key heavy industries would be reduced nine-tenths. At their wartime peak, the industries set aside by the directives produced 95 percent of Japan's pig iron, 88 percent of the steel ingots, 50 percent of the machine tools, 87 percent of the shipbuilding facilities and 90 percent of the ball and roller bearings. Most of the plants were taken from the Zaibatsu holdings, factories owned by large family concentrations of wealth which were denounced by the Allies as "feudalistic and abettors of war."

The most critical problem in the minds of most Japanese during the first half of 1946 was the severe shortage of food. A combination of bad conditions—poor weather, crop hoarding by farmers who were reluctant to sell food for inflated currency, a large flow of food into the black market and a collapse of price controls—forced the Japanese Government to maintain a wartime ration of 1,300 calories daily.

In January the occupation authorities realized that a famine might very well occur unless food was imported by May. General MacArthur estimated that Japan had to import 3,311,000 tons of food in 1946 to provide an 1,800-calorie daily minimum diet. The situation was made further alarming by the revelation that Korea, which normally exported between 36,000,000 and 54,000,000 bushels of rice to Japan annually, would almost certainly be able to ship nothing.

The existence of large pools of food in the black market and in the rural areas began at the outset of the occupation. The Government found its methods of food collection ineffectual and the distribution of food from farms to cities was small in proportion to the volume of produce. S.C.A.P. viewed the predicament as an exclusively Government affair and refused to use occupation troops to supervise food collections. By March 1, the Government had collected only 52 percent of the rice quotas from farmers as against 86 percent for the year before.

The original 1946 import requirement was revised to 2,000,000 tons by General MacArthur in a report to the War Department in which he stated that Japan needed 200,000 tons of wheat, rice, soy beans, and other foods each month until fall. In March the Combined Food Board in Washington approved of only 600,000 tons and the Far Eastern Commission ruled in April that only sufficient food should be sent to Japan to safeguard the Allied occupation forces.

The early summer months saw the food shortage at its worst, with nine people a day dying from starvation in the Tokyo area. By fall the most critical period had passed and bumper crops of rice and sweet potatoes were anticipated. Allied headquarters strove to prevent starvation and arrest by releasing 157,435 metric tons of imported ce-

reals and 17,273 tons of canned food, totaling about 25 percent of the monthly staple food ration. In September the Government promised the people their first ration of rice at controlled prices since May.

A great part of the fabric of Japan's prewar economy was woven around a feudalistic, tenant-farmer system of agriculture. The average farm was less than two and a half acres with over two-thirds of the farmers renting at least a part of the land they tilled. Since 1930, when Japan's economy was geared to the war machine, farmers seldom made a profit. The very nature of the farmers' poverty furnished food and incentive to the war machine; the low standard of living provided funds for armaments, his children filled factories with cheap labor, and his abject life gave foundation to the propaganda for expansion and *lebensraum*.

After S.C.A.P. recommended that the land-holding system be reformed, the Japanese Diet passed an agrarian reform law in December, 1945, limiting the land held by absentee landlords to about twelve acres and providing for the sale of the remainder of the land at fixed prices through local land commissions Objection was made to payment to landowners by the Soviet Council member, Lt. Gen. Derevyanko, who preferred to expropriate the land Mr. Atcheson, the United States representative, rejected expropriation because it was not in "accord with democratic principles."

Because of numerous loopholes, the Diet revised the bill and presented a new program in late August for breaking up the feudal land holdings. The purpose of the bill was to prevent absentee landlordism and cut the roots from the system that forced the family of a tenant farmer into the cheap labor pools of the urban communities. If the provisions were carried out, tenants would be sold four-fifths of the land under cultivation on a 30-year pay basis. The 3,000,000 share-cropper families would become owners of 5,000,000 of the 6,500,000 acres held under tenancy. The land would be purchased by the Government from the owners at 757 yen per tan (about one fifth of an acre). Superficially the bill contained the defect of not limiting the amount of land one family could own nor setting any limit on the amount of land that could be purchased. Also, landowners attempted to evade the law by illegally selling portions of land to members of their immediate family and other relations.

The role of labor, long a dormant, ineffective force in the shaping of national policies, rose to prominence after the surrender of Japan. After the initial organizing activities, which were essentially limited to individual factories, federations rapidly began to form. In Hokkaido thirty-three coal mines were federated by January and plans were made for a national union. Similarly, unions began forming among the tramway workers, railroad workers, and government employees. By July 4,000 labor unions and 3,000,000 members were organized.

The growing importance of labor persuaded the Government to establish a new Ministry of Labor with full Cabinet status in May to cope with the increasing problems that accompanied labor's rapid growth. The most prominent problem stemmed, not only from the right to strike, but from the workers' power to expropriate a factory, workshop, or office from an employer. This power, usually known as the sit-down strike, stimulated a Cabinet debate over possible legislation to curb "the workers' control of production." Most members of the conservative Cabinet felt that this workers' privilege was undesirable and would retard production.

A major strike, breaking out in the offices of the newspaper *Yomiuri Hochi* on June 14, developed into a battle to determine whether capital or labor would control the Japanese press. The strike was set off by the dismissal of Tomin Suzuki, managing editor and vice-president of the Japan Press and News Agency Workers Union, two days after 700 workers had been refused a salary increase. In a conflict over control of the newspapers policies, Suzuki lost to the editor, Tsunego Baba, on the decision of the board of directors. The strength of the strike gradually diminished after Baba agreed to pay the increases, but refused to permit the union any voice in the editorial policies. Although S.C.A.P. remained impartial in the dispute, it was generally felt that the publishers were favored against the union, some of whose leaders had strong leftist leanings. General MacArthur had made it known repeatedly that he would definitely oppose any Communist trends in Japanese politics.

Japan's 80,000 maritime workers went on strike on September 10 in protest against the mass dismissals that it believed imminent after the Government had announced that it would reduce the number of maritime workers by 80 percent. The strike came after the Government made no reply to the union's demands for retraction of the unilateral layoff policy, negotiation with the union over personnel reorganization and Government retraining of workers forced into other industries by the layoff. The strike was settled on September 20 with the Government granting wage increases of 30 to 50 percent, plus living allowances.

A week after the maritime strike began the Government narrowly averted a threatened 24-hour walkout by the 500,000 government railway workers who objected to the projected dismissal of 75,000 workers. The Government conceded to the formation of a joint management council on which labor would supposedly have an equal voice in determining personnel adjustments.

The lower house of Parliament passed a controversial labor bill on September 15 which established machinery for the arbitration of industrial disputes but prohibited strikes by government employees and municipal workers. Workers in certain occupations, including transportation and public utilities, were prohibited from striking until thirty days after the employer or employee had applied for mediation.

Allied success in transforming the Japanese economic structure proceeded more slowly than the political and social reforms. The foundation of prewar Japan's monopolistic economy was primarily based on the Zaibatsu, the dozen or so families that ruled Japan's economic life. This economic oligarchy was one of the strongest supporters of the military machine for which it provided the weapons and munitions of war.

Immediately after the occupation was installed, General MacArthur informed the Zaibatsu that their dissolution was necessary to Japan's postwar democratized economy. In April, S.C.A.P. accepted the plan of the Yasuda family for the entire Zaibatsu. Under its terms, the families would sell their holdings in all companies to a Liquidation Commission in exchange for government bonds not negotiable for at least ten years.

According to a report by Corwin D. Edwards, the U.S. State Department's consultant on cartels, the Zaibatsu combine controlled 51 percent of Japan's coal production, 88 percent of the steam-engine production, 55 percent of the pulp production, 69 percent of aluminum production, and 51 percent of the airplane-manufacturing industry.

The Edwards recommendations, if followed, would mean a revolution for Japan's industrial economy and its relation to world trade. The Zaibatsu's system of trusts and cartels had been ramified by price fixings and market allocations. The State Department report urged a long range conversion of Japanese industry to the American way of doing business. To aid in the conversion, need was stressed for an anti-trust law, oriental versions of the Securities and Exchange Commission and the Federal Trade Commission, and new tax laws

The dissolution of the five largest members of the Zaibatsu with the transfer of their operating and subsidiary shares to the Liquidation Commission was scheduled for Sept. 30. The family trusts affected by this initial trust-busting move were;

Mitsui—Including ninety-one corporations with an aggregate capital of 3,880,000,000 yen.

Mitsubishi—Thirty-eight corporations with a capital of 2,767,000,000 yen.

Sumitomo—Thirty-one corporations with a capital of 1,666,000,000 yen.

Yasuda—Twenty-nine corporations, with a capital of 641,000,000 yen.

Fuji Industrial (formerly Nakajima, making war materials, including aircraft)—sixty-six corporations, with a capital of 281,000,000 yen.

The capital of these 255 companies represented about half the aggregate capital of 1,200 concerns designated for liquidation by Allied headquarters.

Japan's attempts to survive the destruction of the war and rehabilitate her peacetime industries and trade so that her population could be sustained by exports of finished products to pay for food proved a difficult task Before the war exports were based on the products of the cartel-slave labor combination. Furthermore Japan had developed strong markets within her empire, which supplied her with the necessary raw materials. A unique feature of Japan's imperialistic growth was the development of Manchuria into an industrial center for the benefit of the homeland. Usually, world empire development was characterized by a siphoning of raw materials from the colony to the homeland, which finished the raw materials into goods and products for sale to the colonies Japan somewhat reversed the procedure and made the homeland the market for goods produced in the colony.

Stripped of her prewar colonies, Japan's dependence on foreign countries for food and raw materials grew into a significant problem In January the occupation authorities realized that the reestablishment of textile industries was an important factor in breaking the inflation and affording Japan an opportunity to pay for an important factor in breaking the inflation and affording Japan an opportunity to pay for imported food. Accordingly, approval was made for shipments of 340,000 tons of cotton to Japan. Before the war, Japan was the world's largest exporter of cotton textiles. Despite the shortage of labor, by the end of May Japan attained one-fifth of its prewar cotton textile capacity and one-third of its prewar rayon capacity.

Japan had provided 75 percent of the prewar world's exportable silk, and for a time silk accounted for one-third of the export trade, with some 25 percent of the population deriving at least a part of their income from the product. In 1946, Allied plans called for the shipping of 120,000 bales to the United States at the controlled rate of 10,000 to 14,000 bales monthly. Exports were arranged on the prewar averages of 80 percent for the United States and 20 percent for the rest of the world. By August 53,000 bales had been shipped and 32,000 more were awaiting shipment to the United States. Allied headquarters anticipated a permanent world market for Japanese silk of 200,000 to 225,000 bales, about half the prewar export total.

General MacArthur's plan for the revival of Japanese trade was approved by the War Department in March. With the exception of silk and rayon goods, the plan intended the bulk of Japan's exports to be directed to the Orient, particularly to China, Formosa, and the Netherlands East Indies. The predominant purpose of the plan was to reduce Japanese unemployment and provide Japan with the means to purchase food with exports. A tentative schedule of exports for 1946 included the following partial list:

	First Half Year	*Second Half Year*
Cotton fabrics including towels and blankets (square yards)	None	88,500,000
Raw silk (bales)	30,000	50,000
Assorted silk fabrics (square yards)	40,000,000	38,000,000
Silk and rayon mixed fabrics (square yards)	10,000,000	7,000,000
Rayon fabrics (sq yards)	25,000,000	55,000,000
Hosiery (dozen pairs)	94,000	1,000,000
Electric light bulbs	None	5,000,000
Electric refrigerators	600	1,400
Phonographs	10 000	30,000
Bicycles	50 000	100,000
Household radios	20,000	30,000
Radio tubes	1,000,000	15,000,000
Aquatic products including dried sharks' fins (tons)	450	350

In preparation for this program S.C.A.P. created a non-profit committee to organize the converting of 2,000,000,000 tons of armaments steel for civilian use.

The revival of production and trade was strongly hinged on Japan's ability to produce coal. The detrimental effects of the acute food shortage and run-down condition of the mines limited the coal output up to September to 1,500,000 tons monthly against 3,000,000 tons before the war. Joseph Z. Reday, chief of the industrial division of Allied headquarters, said that the number of miners, 300,000, was about the same as before the war, but much time was lost in strikes and absences from the mines to seek food.

Emperor Hirohito gave impetus to ratification of the new constitution in an address to the Diet on June 21, urging approval of the constitution in the name of "the supreme will of the people." In the debate that followed the only major revisions concerned the status of the Emperor and the Cabinet. In the preamble, amendment was made to read "We do proclaim that sovereignty rests in the people." Further subordination of the Emperor was made in Chapter 1, Article 1, in which declaration was made that the Emperor "derives his position from sovereign will of the people, in whom sovereignty rests."

The second major change concerned Article 64, amended to make it necessary that the Premier and a majority of the Cabinet be members of the Diet.

On August 24 the draft of the new constitution was adopted by a vote of 421 to 8 in the lower house of the Diet and on October 7 it was formally approved by a standing vote without debate.

Adherence to General MacArthur's January 4 purge decree took on new vigor on July 29 when Premier Yoshida indicated before the lower house of the Diet that stricter enforcement of the purge direction would be undertaken. Unofficial estimate claimed that 15,000 Japanese lost their jobs in public office as supporters of the war regime.

A few weeks later Premier Yoshida, in a speech following his formal installation as President of the

Liberal Party, lauded Ichiro Hatoyama, first president of the party, as well as "other members of the party, who have been purged." Late in September after the Government outlined a plan for the purge of intellectuals and business men, Chuzo Iwata, former Minister of Justice, was banned from the House of Peers and forbidden to hold any public office.

The problem of democratizing Japan often flared into a communism versus democracy issue in Allied Council meetings. General MacArthur and Mr. Atcheson openly attacked Communist propaganda and labor union infiltration, asserting that the United States strongly disapproved of any leftist domination of Japan's economic and political life.

A poll taken by the influential newspaper *Asahi* in August revealed a progressive trend away from the conservative Government and the many mild liberals that filled the lower house of the Diet. Of those questioned in the poll, 40 percent supported the Socialist platform against 33.7 percent behind the Liberal-Progressive combination in the Government. The swing to the left derived from the Government's inability to cope with inflation and the food shortage. It was further believed that if the Government wiped out the large capital holdings, as the Allied wished, the only way Japan could maintain an important industrial establishment and an export surplus was through Government ownership.

A month later General MacArthur declared that the "dread uncertainty" of an ideological struggle between democracy and communism hung over Japan. The statement was made in a summary of the first year of occupation. Speaking directly against leftist indoctrination by representatives of the Soviet Union, MacArthur warned: "The Japanese, long regimented under a philosophy of the extreme conservative Right, might prove easy prey to those seeking to impose a doctrine leading again to regimentation under the philosophy of the extreme radical Left." He asserted that the benefits of democracy would form the cornerstone of Japan's freedom, "unless uprooted and suppressed by the inroads of some conflicting ideology which might negate individual freedom, destroy individual initiative and mock individual dignity." In actuality, the Communist party was a minor influence; they had seated five members in the Diet, their party membership did not exceed 10,000, their leadership was inexperienced, and their influence in the powerful Congress of Industrial Unions was on the wane.

The Social Democratic Party, the third largest in Japan, polled 10,000,000 votes in the national election. Although its platform was distinctly left at the time of election, it displayed an increasing tendency to a more conservative program. The anti-Communist sentiments of the Allied authorities reflected themselves in the development of the Social Democratic policies. In the Diet, the Social Democrats excluded members of the Communist Party when trying to form a united Front. Suetiro Nishio, vice-president of labor's right wing Sodemei Federation, was re-elected to the party's all important post of Secretary General. In determination of future policy, the left wing, which held about 27 of the 90 seats in the Diet, was voted down in its desire to oust the Yoshida Government. The re-elected party president, Tatsuo Katoyama, maintained the party platform of socialism, but added that the Social Democratic Party will "take neither a right nor a left course."

Under the guidance of General MacArthur, the Japanese Diet continued to tear down the hallowed traditions and procedures and substitute them with more Occidental institutions and innovations. The Yoshida Government on July 19 introduced proposals for the revision of two basic laws, long a part of Japan's governmental pattern. Predicated on the bicameral legislative system provided in the new Constitution, the first proposal established a new elective Upper House, replacing the now old hereditary nobility and Imperial nominees who constituted the House of Peers. The new body, known as the "House of Councillors" would act as "an organ of restraint on the House of Representatives." The second proposal, effecting the Imperal Household Law, established a procedure for succession to the throne. It barred women from succeeding to the throne, and left room for inclusion of possible provisions for succession if the Emperor abdicated the throne.

During the following month the Government's provisional legislative commission attacked part of the fundamental roots of Japanese life and outlined laws designed to eliminate the custom of primogeniture and place women on an equal economic basis with their husbands. The new laws would supersede the existing laws which granted the "head" of each house the legal right to make decisions regarding all members of his family. The ancient custom of leaving the complete inheritance of a family to the oldest son was discarded and replaced by laws providing that obligatory shares would go to the widow and all children. The law providing for economic equality of the wife would abolish the existing law whereby the husband had the use and administration of all property belonging to his wife, who could not take any action without his consent or consent of the "head" of the house.

On September 20 the Diet approved the Labor Relations Adjustment Act prohibiting strikes against the Government, and enacted a series of laws intended to democratize provincial and local administration. The labor law, passed when a strike among the railway workers threatened, demanded that Government workers give thirty days' notice of any intention to strike and provided for compulsory arbitration during the interim. The four administration laws, effective in October, provided for the popular election of prefectural governors, mayors of cities, and chiefs of villages, townships and wards. The laws eliminated any control over such officials by the national Government, which previously had made appointments.

Included among other bills passed by the time the Diet adjourned on October 12 were laws governing the budget, capital levies, indemnity cancellation, and finance rehabilitation. The largest Governmental appropriation in Japanese peacetime history was adopted in an ordinary budget of 65,800,000,000 yen, plus two extraordinary budgets which brought the total up to 122,490,000,000 yen. A large source of Government revenue was expected from a law imposing a capital tax of 25 to 90 percent on fortunes above 100,000 yen ($6,600 at the official exchange rate). An estimated 43,000,000,000 yen from 500,000 taxpayers was anticipated from this levy. The reduction of the Government debt by 100,000,000,000 yen was expected from the law that cancelled all indemnity guaranteeing restitution to Japanese industry for damage incurred by enemy action. Also approved was a law establishing a 10,000,000,000 yen Government fund to finance the recovery of light industry necessary to manufacture products for reconstruction.

Labor difficulties constantly intervened as Japan tried to rehabilitate her disrupted economy. The disparity between prices and wages, irritated by inflation and black market activities, resulted in an endless succession of strikes. On October 5 the Government threatened to take over all radio stations if the employees continued to participate in the radio and newspaper strike that began September 22. The end of this strike, on October 24, was a major blow to organized Japanese labor. Despite failure of the union to reach an agreement with radio management, the workers decided to return to work, in a move that was interpreted to indicate disunity in union ranks.

General MacArthur's headquarters decided to curb labor unrest on August 29 and informed the Government that "strikes, walkouts, or other work stoppage which are inimical to the objectives of the military occupation are prohibited." With the announcement of this measure, General MacArthur ordered the authorities to end the three-day-old seamen's strike that stopped the sailing from Sasebo of five ships bearing repatriated Japanese. As the Congress of Industrial Organizations called a strike affecting 53,000 miners in the Hokkaido coal fields on October 10, Premier Yoshida denounced the wave of strikes as a political maneuver by the left to oust his regime. All units of the Japanese Congress of Industrial Organizations were on strike or presenting demands during September.

After a five-day walkout, the Hokkaido miners won a victory by obtaining a 30 percent wage increase. By the end of November the Government indicated a stronger policy toward strikes would be adopted. Welfare Minister Kawai, speaking before the House of Peers, said that while the Government supported a healthy union movement, strikes backed by a political motive or even strikes with economic aims but in conflict with public interest, would be actively opposed.

Linked to Japan's efforts for renovation of her industry to comply with peacetime economic needs were the conditions surrounding the reparations demands of the Allied powers on Japan. According to an official announcement by the United States Department of State the final reparations program would aim to strip Japan of all war-making power. While terms of the final demands on Japan were under frequent discussion in the meetings of the Far Eastern Commission, General MacArthur's headquarters claimed that delay in presenting the terms was seriously impeding the work of the occupation. The deadlock on reparations resulted from an issue on the status of machinery and equipment removed from Manchuria by the Soviet Union. The United States wished to have the removals deducted from the Soviet reparations bill while the Soviet Union considered the Manchurian removals legitimate war booty.

The deadlock prompted the United States on November 7 to invite ten nations, including the Soviet Union, for assistance in preparing a directive on how to divide reparations from Japan. The proposal was extended to all members of the Far Eastern Commission, which included, in addition to the United States and the Soviet Union, Britain, France, China, the Netherlands, Canada, Australia, India, New Zealand, and the Philippine Republic. The United States suggested that the Commission draw up interim orders for the immediate division among the claimant countries of from 15 to 20 percent of the Japanese assets selected for reparations and later determination of how the remaining 80 percent should be allotted.

On November 28 publication was made of the first detailed reparations report, prepared by Edwin W. Pauley, U.S. Reparations Commissioner, which blueprinted plans for smashing Japan's war-making potential and recommended removal from Japan of about three-fourths of her key iron, steel, and machine-tool industries. With the elimination of all war and munitions industries, the report suggested complete removal of all aluminum, magnesium, and synthetic oil plants and 50 percent removal of electric powers facilities.

The iron and steel industries, termed "a powerful weapon for the domination of Asia," would be reduced to an annual capacity of 2,750,000 tons—less than 2 percent of the amount annually produced in the United States. The cut in iron and steel industries would permit the Allies to divide among themselves approximately 6,000,000 tons of open hearth capacity, 3,000,000 tons of electric furnace facilities and machinery capable of rolling 6,000,000 tons of iron and steel.

Characterizing the machine-tool industry as the heart of the problem of reducing Japan's war potential, Mr. Pauley said that a total of 600,000 machine tools should be removed from Japan's heavy stocks, leaving 175,000 which would include the capacity to produce no more than 10,000 new machine tools annually.

In the field of shipping, the report proposed that Japan be limited to 1,500,000 gross tons with no vessels exceeding a weight of 5,000 gross tons or a speed of twelve knots. On this basis the Allies would receive 114 ships, each weighing 5,000 tons or more, totaling 869,000 tons.

Other major categories of the Pauley report include: nitric acid—240,000 tons annually for reparations, leaving Japan an annual capacity of 12,500 tons; celluloid production—completely removed; railway equipment and rolling stock—removal of 970 electric and steam locomotives and 30,000 freight cars with seizure of plants with a capacity to make 850 locomotives, 1,200 passenger cars and 7,600 freight cars; shipbuilding and ship repair facilities—seizure of 30 to 40 shipyards, leaving Japan 548 shipyards for wooden ship construction; petroleum—seizure of all synthetic oil plants except portions of five used for production of nitrogenous fertilizers; communications equipment—manufacturing capacity limited to home needs; power plants and facilities—removal of 140 thermal power plants totaling 2,000,000 kilowatts and an undetermined number of 1,507 hydroelectric installations; ferro alloy minerals—removal of all nickel smelters and mining and milling equipment from "uneconomic" mines for chromium, manganese, tungsten, molybdenum, and nickel.

The Japanese compliance with General MacArthur's purge directive aroused a charge from the Soviet Allied Council member, Lieut. General Derevyanko, on October 2 that the Japanese Government was preserving the structure of its military general staffs through the use of former high-ranking military officers on demobilization board. Directing his accusations at the Japanese, the Soviet representative said that the personnel of a former military intelligence division was operating behind the veil of the demobilization agency and was engaged in activities which bore little relation to the primary job of demobilizing the Japanese army and navy.

The critical food shortage which was at its lowest point during the summer months apparently eased off by the end of October when the Government raised the rice ration to its prewar level of two-and-a-half "go," about two-and-a-half handfuls. While the Government announced that Japan

was not yet self-supporting, the increased ration was afforded by the arrangements permitting the importation of 2,000,000 tons of staple foods. In an effort to raise agricultural productivity, the Government devised a system of long-term loans to assist purchasers of land previously uncultivated. Chiefly intended for repatriates and the unemployed, the plan provided for a 10,000 yen ($660) loan to each landowner for the purchase of equipment, livestock and fertilizers.

The new constitution was officially promulgated on November 3 in an Imperial Rescript read over the radio by Emperor Hirohito. In his most important address since the New Year's message destroying the divinity concept as myth, the Emperor announced the organic law that proclaimed the sovereignty of the people and the renunciation of a Japanese armed force.

The ninety-first Diet ended its month-long extraordinary session on December 26 after enacting legislation which included a new Imperial house law assuring the regal status of Imperial family and rejecting the concepts of female succession to the throne or abdication by the Emperor. Other laws set up the bicameral Diet as the supreme power and abandoned the hereditary House of Peers for a popularly-elected House of Councilors.

On December 21 Japan suffered one of the greatest earthquakes and tidal wave disasters in its history. Six tidal waves swept over southern Japan causing nearly 2,500 casualties, including 1,088 dead and wrecking the homes of a 100,000 people on the island of Honshu, Shikoken and Kyushu. The damage listed by the Tokyo Ministry on December 24 included 7,350 houses wrecked, 9,555 partly wrecked, 2,742 washed away, 2,399 buried under debris, 2,502 vessels wrecked, 48 bridges damaged, 91 levees wrecked, and 155 roads damaged.

Repatriation. The repatriation of Japanese nationals and members of the armed forces, in compliance with the provisions of the Potsdam Declaration and in answer to the growing demands of Japanese families on the homeland, began effectively in 1946. The United States Army and Navy jointly explained their plans on March 1 for the evacuation of 3,300,000 Japanese from China, Manchuria, and Formosa by using American ships, primarily manned by Japanese crews. Up to the date of the announcement about 239,000 Japanese troops and 128,000 civilians had been transported from China and Manchuria, leaving 1,700,000 troops and 1,600,000 civilians in those areas and Formosa.

In the Soviet Union zone, the United Press reported that between 100,000 and 200,000 Japanese troops had been shifted from the Mukden, Manchuria, area in February to work in the industrial center of Chita in Siberia. Questioning Soviet repatriation policies, Mr. Atcheson opened the issue in an Allied Council meeting in June by citing the report that repatriation from United States-controlled areas was 93 percent complete, from the British-controlled areas 68 percent complete, from the Chinese areas 94 percent complete, and from the Soviet areas no repatriation had been made. Lt. Gen. Derevyanko claimed that repatriation fell outside the purview of the Allied Council, but Mr. Atcheson quoted the Potsdam Declaration which said: "Japanese military forces, after being completely disarmed, shall be permitted to return to their homes with the opportunity to lead peaceful and productive lives."

After repeated pleas by Japanese government officials and direct representations by Washington, the Soviet Government announced on September 26 that between 17,000 and 25,000 Japanese would be shipped monthly to Japan.

By September 1 Allied headquarters announced the repatriation of 4,402,357 Japanese. The largest units of the Japanese merchant fleet were mobilized on November 27 to repatriate the first large group of Japanese soldiers and civilians in Soviet-held territory. The twelve repatriation ships were expected to carry some 25,000 Japanese citizens from northern Korea, Siberia, Manchuria and Sakhalin. On December 19 the Soviet Union agreed to repatriate Japanese at the rate of 50,000 a month, which doubled the Soviet Union's initial repatriation rate and included civilians as well as prisoners.

Changes in Education and News. Allied Headquarters dug at the roots of the Japanese war mentality on the last day of 1945 by suspending the teaching of history, geography and morals by Japanese schools and ordering the destruction of textbooks and teachers' manuals. The three subjects by which the Japanese military clique indoctrinated school children would be substituted by current events programs tied to radio news periods.

Until the Japanese Education Ministry could prepare new textbooks or pamphlets, Allied authorities intended to use the radio as primary education medium. To assist in the textbook revisions, thirty prominent American educators were invited to Japan by General MacArthur. It was hoped that the mission would succeed in revamping Japan's entire educational system, from elementary schools to universities, to facilitate the occupation force's program of re-education.

The Japanese press in early January was instructed not to speculate on the policies of the Allied powers, particularly in regard to the possible arrest of war criminals The order came to light after the Allied censors refused the Japanese press to print an Associated Press dispatch reporting the Allies' intention to arrest additional "Class A" war criminal suspects, accused of promoting Japanese militarism. At the same time the Allies moved to "weed out all second cousins holding broadcasting jobs" and establish Japanese broadcasting as a responsible duty. Immediately after the occupation, the Allies took over the hundred-odd broadcasting stations, retained most of the staffs, and dictated broadcasts or suggested types of programs

Resumption of the teaching of history in Japanese schools with the employment of new "objective textbooks" was authorized on October 14 General MacArthur's headquarters announced that the new books were free of "militarism, ultranationalism and the doctrine of Shinto which characterized the wartime texts." Japan's defeat in the Pacific was discussed in the texts which characterized the occupation as the beginning of a democratic Japan. The teaching of geography was resumed on June 29, but instruction in morals continued to be outlawed.

During the first year of the occupation, the effect of the purge on the teaching profession showed 331 dismissals out of a total of 15,992 teachers examined.

Financial Status. Entering the initial phase of the postwar period, Japan found its financial structure undermined by a serious inflation, black market activities and a production output hampered by reparations, reconversion and wage scale fluctuations. At the beginning of the year circulation was twenty-seven times greater than the prewar normal. The value of the yen stood at one-tenth of a cent on the basis of the black market rice price

and six and two-thirds cents, at the official rate. Since the flow of produce was so sporadic, the value of the yen could not be realistically pegged on the basis of staple food supply. In January current prices of perishable foods were about twenty times what they were in the prewar and early wartime days.

The vicious financial system that existed forced the Japanese Government to supply the demands of the occupation army by producing more government obligations and selling them to the banks, thus producing additional currency which the banks sent into circulation. In an effort to break this program before the currency grew completely out of hand, Allied Headquarters ordered the Japanese Government on January 24 to cease paying occupation costs through deficit financing or supplying the Allied requirements by printing additional currency. This forbade the use of overdrafts on the Bank of Japan which hitherto had been honored by simply printing currency. The order also froze the Government's debts to the banks and insisted that the bonds be retired as quickly as possible, with a prohibition on further borrowing The order was prompted by a Government application to borrow 14,000,000,000 yen from the Bank of Japan, in exchange for Government bonds, so that the deficit of November and December 1945 expenses could be met

The greatly increased quantity of yen in circulation was accomplished by a 300 percent increase in retail prices between February 1945 and February 1946. The constantly rising spiral of inflation was prodded by a nation-wide black market that resulted from the inability of supply to meet demand. The immediate causes resulted from the destruction of factories and other means of production during the war, the disrupted communications system, a shortage of labor and the volume of yen that had increased from 18,000,000,000 to 62,000,000,000. To combat this cancerous bankruptcy, the Japanese Government, with the approval of Allied Headquarters, froze all bank accounts on February 16 and set up a plan for recalling all circulating currency and making a limited issue of new currency. Between February 25 and March 2 the Japanese were ordered to turn in all currency over five yen denomination and receive new money.

In addition, the Government clamped a ceiling on salaries with a limit of $33 a month during this "exchange" period. Individuals were limited to bank withdrawals of 300 yen ($20) a month for each head of a family, plus 100 yen for each member of a family. This last measure was aimed to reduce the amount of yen in circulation and in the hands of the consumer, thus stalemating black market activities.

Despite the reduction of circulating currency from 62,000,000,000,000 to 15,000,000,000,000 yen, the new laws failed. Businessmen, who were limited to salaries of 500 yen, were hired as "advisors" by other companies and received a 500 yen salary from each company. Families gave false registrations to obtain additional yen or contrived deals with American occupation troops who were not restricted in the amount of old yen they were allowed to convert. Of greater importance in the failure of the plan was the lack of an accompanying program for the increase of consumer goods to eliminate consumer competition at the black market.

During the period March 2–November 7 the volume of currency in circulation rose from 15,000,000,000 to 70,000,000,000 yen, a figure that was thirty-five times the normal prewar level. With production less than 2 percent of the prewar level, Finance Minister Ishibashi said that Japan's answer to the inflation problem was not in attacking inflation itself, but rather to increase production.

Production. Economic rehabilitation proceeded gradually throughout the year, with primary concentration placed on restoring production of essential consumer goods, but with some attention given to production of certain export items. Production of the six major food crops for 1945 were (in metric tons): rice 6,200,000; barley 500,000; naked barley 700,000; wheat 900,000; sweet potatoes 4,800,000; potatoes 2,200,000. These crops normally account for over 80 percent of the caloric value in the Japanese diet. Tea production in 1944 equaled 47,000 metric tons and 25,000 metric tons for 1945. Vegetable production in 1945 equaled 5,500,000 metric tons; estimated 1946 production was 6,000,000 metric tons. Livestock totals for 1945 and estimates for 1946 were: cattle 2,318,000 and 2,993,600; sheep 181,760, no estimate for 1946; goats 257,700 and 252,700; horses 1,254,044 and 128,600; hogs 250,000 and 200,000. Electric power capacity for 1945 was: hydro-electric 6,161,000 kilowatts; steam 3,964,000 kilowatts.

Foreign Trade. First half 1946 (January through June). Exports: main items and country to which exported:

China	
Detonators, electric	546,000 pieces
Eggs, silkworm	300,000 sheets
Seedlings, mulberry	2 000,000 pieces
Timbers, moving	18,218,800 boardfeet
Hong Kong Coal	87,943 metric tons
U.S.S.R. Eggs, silkworm	50,400 sheets
United States	
Lead	5,000 metric tons
Rubber	1,900 long tons
Silk, raw	42,513 bale/case
Tin	2,205 short tons
Korea	
Bamboo	20,788 bundles
Boiler tubes	10,897 pounds
Cloth, wool & cotton	900,000 yards
Coal	389,558 metric tons
Paper, cigarette	265,634 pounds
Seed, vegetable	72 200 pounds
Seedlings, mulberry	910,000 pieces

Imports (main items) and countries of origin

China	
Phosphate rock	7,350 metric tons
Salt	117,690 metric tons
United States	
Foodstuffs	178,217 short tons
Vegetable seeds	58,353 pounds
Cotton, raw	65,311 bales
Phosphate rock	12,502 short tons
Medical supplies	1,400,000 pounds
Oil, fuel	385,125 barrels

Transportation. The rail system sustained relative slight war damage but suffered from inadequate maintenance and over-taxing of facilities. Gradual progress was made in improving operations through progress in repair and construction of rolling stock, improvement of track bed and improved labor conditions. The number of motor vehicles in operation as of August 31 equaled 104,000 as compared with 74,000 in September 1945. The merchant shipping fleet at the time of surrender was reduced to one-third its prewar strength.

JOSEPH P. BLANK.

HIROSHIMA AND NAGASAKI

[Because of its historical importance the following accounts of the bombing of Hiroshima and Nagasaki are included in this year's YEAR BOOK, since the first complete official information has be-

come available only during 1946. These accounts were prepared, by the Personnel Narratives Division of AAF Headquarters, from the June 30, 1946, report of the Chairman's Office of "The United States Strategic Bombing Survey" established originally on November 3, 1944, by the Secretary of War to study the effects of our aerial attack on Germany, and, on August 15, 1945, requested by President Truman to conduct a similar study of the effects of all types of air attack in the war against Japan, submitting reports in duplicate to the Secretary of War and the Secretary of the Navy. The Survey, operating from headquarters in Tokyo early in September, 1945, with sub-headquarters in Nagoya, Osaka, Hiroshima, and Nagasaki, with mobile teams operating in other parts of Japan, the islands of the Pacific and the Asiatic mainland, provided for a complement of 300 civilians, 350 officers, and 500 enlisted men. The officers of the Survey during its Japanese phase were: Franklin D'Olier, Chairman; Paul H. Nitze, Henry C. Alexander, Vice Chairmen; Walter Wilds, Secretary; Harry L. Bowman, J. K. Galbraith, Rensis Likert, Frank A. McNamee, Fred Searls, Jr., Monroe Spaght, Dr. Louis R. Thompson, Theodore P. Wright, Directors.]

Atomic Bombs. The overpowering devastation of atomic power was first demonstrated in actual battle on August 6, 1945, when the Japanese city of Hiroshima felt the full force of an atom bomb dropped from the sky. Three days later, Nagasaki, another important city in the Japanese industrial war machine, was blasted by an atom bomb. The cumulative effect of these two devastating actions partially contributed to the surrender of Japan on August 14, 1945—eight days later.

The effects of the bomb on these cities, the contrast in damage, and an account of the nature and history of each city provide meaning for the details of the disorganization and damage experienced by each of them.

Target: Hiroshima. At exactly 8:15 a.m. (Japanese time) on August 6, a bombardier opened the bomb-bay doors of the U.S. Army Air Forces B-29 Superfortress *Enola Gay* and unloosed a bomb on the city below.

There was a blinding flash in the sky several hundred feet above the center of the city, instantly followed by a surge of intense heat felt four to five miles from the ground zero (a point on the ground directly under the air blast). Within two minutes the entire area of Hiroshima was covered with a dense, black cloud, resembling boiling dust, that climbed to 40,000 feet.

Thus was the world introduced to military atomic power in the form of a bomb which had the explosive power of 20,000 tons of TNT. The missile which leveled Hiroshima exploded slightly northwest of the center of the city, approximately 750 feet southeast of the point where the Motoyasu Gawa River branches from the Ota Gawa River.

Statistics reveal that this one atom bomb on that August day destroyed 4.7 square miles of Hiroshima, with the dead numbered at between 70,000 and 80,000 people and a similar number injured—a mortality rate of 15,000 per square mile and a casualty rate of 32,000 per square mile.

Hiroshima was selected for the first battle use of the atomic bomb because of its concentration of activities and population. It was a choice military target because in it were located the headquarters of the Second Army and the Chugoku Regional Army Headquarters, which occupied the greater part of the central island. Here, too, both residential areas and military barracks overlapped and surrounded the central island. It was also the site of one of the largest Japanese military supply depots, and was the foremost military shipping point for both troops and supplies. However, by August 6, its shipping had been brought to a virtual standstill because of sinkings in and the mining of the Inland Sea.

Hiroshima is located on the broad, fan-shaped delta of the Ota River, whose seven mouths divide the city into six islands, which were connected by eighty-one important bridges. Because of its location and construction, Hiroshima was a prime target, uniformly exposed to explosive blast effect. The only protection was afforded by a kidney-shaped hill, which offered some blast protection to structures on the eastern side opposite the point of fall of the bomb. The hill is about a half mile long, with an elevation of 221 feet. Otherwise, the city was highly vulnerable to the bomb's spreading energy.

The boundary of Hiroshima extends to some low hills situated to the west and northwest. Its area embraces 26.36 square miles, of which only 13 square miles were built up on August 6. Most of Hiroshima's industrial plants were located around the city's perimeter, either to the east or on the southern ends of the islands. The airport was also located on the south central island formed by the Ota Gawa and the Motoyasu Gawa.

The heart of the city, before the explosion, consisted of four square miles of highly concentrated area—a combination of residential, commercial and military establishments containing three-fifths of Hiroshima's population. Five evacuation programs had been completed prior to August 6, and a sixth was underway. Evacuations had reduced the city from its wartime peak of 380,000 inhabitants to 245,000.

Before World War II, Hiroshima was Japan's seventh city in size of population. But although it was the principal administrative and commercial center of the southwestern part of Honshu Island, from an industrial standpoint it was relatively unimportant, ranking twelfth. The advent of war, however, brought new plants which helped increase its significance.

Judged strictly as a testing ground for the atom bomb, Hiroshima was a tinder box. All its dwellings were built of wood, half of which were one story high and the rest either one and a half or two stories. Most of the roofs were constructed of hard-burnt, black tile. According to Japanese custom, large groups of buildings were clustered together. Lacking any masonry division walls and with an outmoded, inadequate fire fighting force, the dwellings were ideal for conflagration, even in peace time. This description of dwellings and residential buildings in Hiroshima almost matched Nagasaki—target of the second bomb.

By American standards, Japanese industrial building construction was considered inferior. Even in reinforced concrete frame buildings there was a lack of uniformity in either design or materials. Construction details were generally poor and much of the concrete weak. This condition explains why some of Hiroshima's concrete buildings collapsed from blast pressure alone, after the atomic burst.

But other buildings in Hiroshima were constructed according to a standard far in excess of American practice. Construction regulations in Japan since 1923 (the year of the disastrous earthquake) specify that roofs must safely carry a minimum load of 70 pounds per square foot. American requirements specify 40 pounds per square foot. With these building facts to consider, it may be more easily understood how practically the entire

densely or moderately built-up portion of the city was leveled by the bomb blast and then swept by fire.

Hiroshima had suffered scarcely any damage from air raids throughout the war, although there had been many air alert warnings. During early daylight hours of August 6, it had an air raid alert but the "All Clear" signal was sounded at 7:30 a.m. Most of the industrial workers were either at or enroute to their places of employment. There were also some industrial workers and nearly all of the school children engaged on a program, out in the open, to provide firebreaks and remove valuables to safety in the country.

The *Enola Gay* flew in over Hiroshima at an altitude of 25,000 to 30,000 feet to drop the bomb. It was piloted by Colonel Paul W. Tibbets, Jr., of Miami, Florida, with Major Thomas W. Ferrebee, Mocksville, North Carolina, the bombardier. Present in the plane was the man who designed the bomb, Navy Captain William S. Parsons, of Chicago, Illinois.

The weather was clear and sunny. After the bomb was dropped, the *Enola Gay* sped away, and by the time the bomb exploded the plane had traveled eight miles. The flash as well as the smoke of the bomb were seen at a point 160 miles from Hiroshima by crewmen of another Superfort over Wakayama Prefecture. The smoke cloud hung over the city for at least four hours after the explosion.

Hiroshima Damage. An infrequent phenomenon, called a "fire storm," occurred in the city. Fires, springing up almost simultaneously over the wide, flat area around the center of Hiroshima, drew in air from all directions. The inrush of air easily overcame the natural ground wind, which had a velocity of about only five miles per hour. The "fire wind" attained a maximum velocity of 30 to 40 miles per hour, two or three hours after the explosion. The "fire wind" and the symmetry of the built-up center of the city gave a roughly circular shape to the 4 7 square miles which were almost completely burned out.

The impact of the bomb shattered the routine. fabric of community life, disrupting the organizations necessary for handling the disaster. A mass flight from the city took place, with incredulous inhabitants looking for food and shelter. The unprecedented casualty rate may be attributed to the element of surprise, the collapse of many buildings, pinning victims under the structures, and the conflagration that followed almost immediately.

The magnitude of Hiroshima casualties may be judged by comparing the bombing with that meted out in the famous Tokyo fire raid of March 9–10, 1945, in which, although nearly 16 square miles were destroyed, the number killed was no larger than the number killed at Hiroshima and fewer people were injured.

Most of the immediate casualties at Hiroshima died from causes not unlike those resulting from incendiary or high-explosive raids. The outstanding difference was the presence of radiation effects, which became unmistakable about a week after the atomic bombing. At the time of the impact the principal causes of death were: (1) flash burns, (2) secondary effects of the blast and falling debris, (3) burns from blazing buildings. The Hiroshima Prefectural Health Department placed the figures at 60 percent for flash burns, 30 percent for falling debris, and 10 percent for others, and it is generally agreed that burns caused at least 50 percent of the initial casualties.

The explosion started hundreds of fires almost simultaneously, the most distant of which was found 13,700 feet from ground zero. Charred telephone poles were discernible for 10,000 feet south and 13,000 feet north of ground zero. Japanese survivors reported feeling the intense heat on their skins as far away as 24,000 feet.

The official Japanese figures on building destruction listed 62,000 out of a total of 90,000 buildings in the urban area destroyed, or 69 percent. An additional 6,000 buildings (6.6 percent) were severely damaged. Nearly all the rest showed either roof tile damage or shattered glass or both.

All utilities and transportation services were disrupted for varying lengths of time. The water supply system suffered 70,000 breaks in pipe connections caused by blast and fire effects, but the reservoir, located about two miles from ground zero and constructed of earth-covered concrete, was undamaged.

Railroad rolling stock, trolley cars and buses received considerable damage, while the electrical power transmission and distribution system was wrecked. The telephone system sustained 80 percent damage and the city was without service for nine days.

Hiroshima's medical facilities and their chaotic disruption more thoroughly illustrate the terrible difficulties that faced authorities. Out of more than 200 doctors in the city when the bomb exploded, 90 percent were casualties; 30 days later only 30 physicians were able to perform their duties. Of the 1,780 nurses in Hiroshima, 1,654 were either killed or injured. There were 45 civilian hospitals on August 6, but shortly after 8:15 a.m. only three were usable. Two large army hospitals were rendered useless; the casualty rate of patients confined in these destroyed hospitals was practically 100 percent. An undisclosed number of Hiroshima's people died, therefore, for lack of medical treatment. Yet, despite the absence of sanitary measures, there was no report of an epidemic outbreak, a surprising fact in view of the almost total lack of medical facilities, supplies, and personnel and the almost complete disruption of the sanitary system.

Fire-fighting and rescue units were almost bereft of equipment and men and only 16 pieces of fire-fighting equipment were available for fighting the fire, three of them borrowed.

Hiroshima's larger industrial plants were not too badly stricken, even though industry in the city's center was effectively wiped out. The bulk of its output came from the larger plants located on the city's outskirts; the Japanese Steel Company and the Toyo Industries, Inc., in the southeast section, for example, were distantly situated from the bomb zero. Only one of the large companies suffered more than superficial damage. And because they were also safely away from bomb zero in the larger plants 94 percent of the employees were uninjured.

On August 7, Hiroshima's prefectural governor issued a proclamation calling for "a rehabilitation of the stricken city and an aroused fighting spirit to exterminate the devilish Americans." But with Japan's surrender, Hiroshima's reconstruction tapered off. On August 16, regular rationing was resumed. By November 1, 1945, the population of Hiroshima was 137,000. Complete rebuilding of the city was necessary, especially of the main administrative and commercial and residential section, where only 50 buildings, all of reinforced concrete, remained standing.

Target: Nagasaki. The second atom bomb which wreaked havoc on a Japanese city was not intended primarily for that city, but for another target. Had it not been for bad weather, thousands of Japanese in Nagasaki, a city of 252,630 in the northwestern

island of Kyushu, might not have been killed or wounded.

A busy seaport, Nagasaki is located on the best natural harbor of western Kyushu. It had, prior to August 9, 1945, undergone five mild air raids during the previous 12 months. An aggregate of 343 tons of bombs had been dropped by 136 planes, total destruction amounting to 276 residential buildings, and 21 industrial plants. Therefore, on August 9, the second atom bomb target was considered intact, when compared with other Japanese cities.

Nagasaki was a highly congested city, extending for several miles along the narrow shores and up the valleys that open out from the harbor. Two rivers, the Nakashima (flowing from the northeast) and the Urakami (flowing into a harbor from a north-northwest direction), are divided by a mountain spur and form the two main valleys in whose basins the city nestles. The mountain spur, plus the irregular topography of the city, effectively reduced the blast effect and the destruction area of the bomb. The metropolitan area of Nagasaki consisted, officially, of approximately 35 square miles and stretched far into the outskirts, while the heavily built-up area was less than four square miles, with a maximum population density of 65,000 per square mile, notwithstanding the previous evacuations. Nagasaki's commercial importance had diminished in recent years because of its isolated peninsular position, inadequate roads and railroad facilities. But its four largest companies (Mitsubishi Shipyards, Electrical Equipment Works, Arms Plant, and Steel Works) employed almost 90 percent of the city's labor aggregate.

Nagasaki had had a raid alert at 7:50 a.m., but it was canceled at 8:30 a.m. When the *Great Artiste*, with a crew consisting of Major Charles W. Sweeney, North Quincy, Massachusetts, pilot; Captain Kermit K. Beahan, Houston, Texas, bombardier; Captain James F. Van Pelt, Jr., Oak Hill, West Virginia, navigator, was sighted, the raid signal wasn't sounded immediately. The raid signal was given seven minutes after the bomb was dropped, with only about 400 people in the tunnel shelters which were adequate for about 30 percent of the city's population.

Nagasaki Damage. At 11:02 a.m., seven hours after the Soviet Union declared war against Japan, the second military atom bomb exploded on Nagasaki to kill about 35,000 of its inhabitants by concussion, blast, and fire, and to injure 40,000.

Ground zero was a point just to the west of the right branch of the Urakami River, about 8,000 feet before it enters Nagasaki harbor. Therefore, it was the Urakami River valley which felt the full devastation of the atomic bomb, both the heat and shock waves. In this valley also, were located the large industrial plants, extending from Nagasaki Bay up the west side of the river.

The blast effect of the Nagasaki bomb was far more pronounced than that of Hiroshima because of the topography of the Urakami River valley, although the actual area destroyed was smaller because of the terrain and the bomb's point of fall. There were only 1.8 square miles destroyed in comparison with Hiroshima's 4.7 square miles.

Due to the protection afforded by the hills, more than half the residential units escaped serious damage. On August 1, 1945, there were 52,000 residential units in the city; on August 9, 14,146 of these were destroyed, representing 27.2 percent. Of these, 11,494 were burned and 5,441 were half burned or destroyed.

The Nagasaki Prefectural Report described the stark impact of the bomb in this fashion: "Within a radius of one kilometer from ground zero, men and animals died almost instantaneously from the tremendous blast pressure and heat; houses and other structures were smashed, crushed, and scattered; and fires broke out. Trees of all sizes lost their branches or were uprooted or broken off at the trunk. Roofs of the reinforced concrete National Schools were crumpled and collapsed, indicating a force beyond imagination."

A survivor of the bombing called it "a blast so terrible that all those who felt it, thought they had been hit by an individual bomb."

Unlike Hiroshima, no "fire storm" occurred; there was, in fact, a shift in wind direction which helped control the fires. Once again, medical personnel and facilities were fatally stricken. More than 80 percent of the city's hospitals were located within a radius of 3,000 feet from ground zero and all were completely destroyed, including the Medical College. The mortality rate in this sector of buildings stood between 75 and 80 percent. But by November 1, half of the pre-bombing number of doctors, or 120 men, were back at work.

Utilities and services were disrupted: both gas plants were destroyed, electric power distribution and transmission systems were wrecked in the area of heaviest destruction, trolleys were halted.

Three bridges were displaced, the railroad stations were destroyed by blast and fire, and rolling stock was slightly damaged, chiefly by fire. Shipping was almost unaffected. Nagasaki is at the end of a railroad spur line and the major damage there was sustained by track and railroad bridges when the rails buckled intermittently for a distance of 5,000 to 7,500 feet from ground zero, at points where burning debris set fire to wooden cross ties.

The basic water supply was not damaged, although there were thousands of breaks in the residential feeder system plus eight bad breaks on a 14-inch line and four other breaks in another main line crossing the Urakami river.

Nagasaki suffered a higher percentage of destroyed and damaged buildings and factories than Hiroshima. In Nagasaki only the Mitsubishi Dockyards, among major industries, was far enough from the explosion to escape serious damage. The other three Mitsubishi firms, responsible for 90 percent of the city's industrial capacity (of these the Mitsubishi Steel Works turned out about 200,000 tons of finished steel products annually, and the Mitsubishi-Urakami Arms Plant produced up to 800 aerial torpedoes annually) were all actually damaged, with the steel and arms plants in the principal area of damage.

Of the damage at the steel works, the Japanese commanding officer of the Sasebo Naval District said: "Plant structures suffered extensive damage to roofs and walls; the frames were bent, twisted or toppled over, and several buildings caught fire. Hardly any of the machinery there could be used again in its present condition though nearly 70 percent of it could be repaired."

The blast effects, akin to the aftermath of a hurricane, were strikingly pronounced at Nagasaki. Long lines of steel-framed factory sheds, more than a mile from ground zero, leaned their charred outlines away from the explosion. Concrete buildings facing the blast had their sides caved in, while blast-resistant items such as telephone poles leaned away from the center of the explosion. There was no general conflagration at Nagasaki but evidence of primary fire was more frequent than at Hiroshima. And despite the lack of sanitary measures there were no epidemics.

It is an interesting fact that the 400 people who were properly placed in the city's tunnel shelters at the time of the bombing escaped injury unless exposed in the entrance shaft.

Contrasts and Similarities. The difference in the totals of destruction to lives and property at Hiroshima and Nagasaki points up the importance of the distinguishing circumstances of construction and layout of the cities, thereby affecting the results of the bombings.

Casualty rates at Nagasaki may be generally explained by the fact that there was a separation of the dispersed built-up pockets while at Hiroshima there was a uniform concentration of people in the center of the city. The Nagasaki bomb spent much of its energy against water, hills, and unoccupied sections whereas the Hiroshima bomb almost attained its maximum effect. It is conceded that the effectiveness of the Nagasaki bomb would have been five times greater had the bomb fallen on a target area not hemmed in by hills.

The one crushing common denominator at both cities was the great number of casualties; the exact number of dead and injured will probably never be known because of the fires, confusion, destruction of official records, and flights of entire families. But it was agreed that of those casualties who died later (after the initial blast), an increasing number succumbed to radiation effects; 95 percent of the traced survivors of the immediate explosion who were within 3,000 feet at both cities suffered from radiation disease.

A plausible estimate of the importance of various causes of death would be: flash burns, 20–30 percent; other injuries, 50–60 peroent; radiation sickness, 15–20 percent.

The damaging penetration of radiation would be possible from three sources, but at Hiroshima and Nagasaki the only important effects were caused by high frequency radiations (neutrons, gamma rays, or other unspecified rays) that were released in the fission of the bomb. This was true though there were detectable pockets of radioactivity in both cities. Radiation appeared to have no lasting effect on soil or vegetation

But the deadly rays proved lethal to humans and animals within a radius of 5,000 feet from ground zero and caused loss of hair within 7,500 feet radius, and milder effects up to two miles from ground zero. The first signs of the onset of radiation sickness were loss of appetite, lassitude, and general discomfort. Inflammation of the mouth, gums, and pharynx next appeared. Then, within 12 to 48 hours, fever became evident, varying from 100° to 106° Fahrenheit.

Individuals nearer the center of the explosion became ill within two to three days after the explosion. Those a greater distance away did not develop the symptoms for from one to four weeks, depending upon the distance between the victim and the explosion. A large percentage of the cases died of secondary disease: bronchopneumonia or tuberculosis, the result of lowered resistance.

When the bombs burst over Hiroshima and Nagasaki, a brief flash emitted radiant heat traveling at split-second speed. Flash burns thus followed immediately and those in the open directly under the explosion of the bomb were so severely burned that the skin was charred brown or black, with the victim dying within a few minutes or hours at the most. Freak cases of protection occurred in which persons whose sides were toward the explosion often showed burns on both sides of the back while the hollow of the back went unscathed. Those in buildings or houses were apparently burned only if directly exposed through the windows.

The fate of industries in both cities illustrated the value of decentralization. All major factories in Hiroshima were on the periphery of the city and escaped serious damage; at Nagasaki, plants and dockyards at the southern end of the city were left intact, but those in the valley where the bomb exploded were seriously damaged. Although the damage in Hiroshima was greater than that in Nagasaki, it is generally agreed that the Nagasaki bomb was more powerful. Brigadier General Thomas F. Farrell, in charge of the atomic bomb operations, saw the results of both bombs and stated that the Nagasaki blast was by far the greater.

The Atom Bomb versus Other Weapons. A simple comparison between the two atomic bomb raids and the most effective "regular" air raid against Tokyo on March 9, 1945, plus a composite of the average of 93 air attacks in urban Japanese areas, shows the power of the atom bomb in its proper perspective.

For the atomic bombings, one plane was involved at both Nagasaki and Hiroshima; for the Tokyo raid, 279 aircraft participated; for the composite average, 173 planes took part.

One bomb was carried for each of the atomic bombings; 1,667 tons of bombs for the Tokyo raid; 1,129 tons for the composite average. These were incendiary, high explosive, and anti-personnel bombs.

Judging from the established destructiveness of various bombs evaluated from the war in the Pacific and Europe and from tests, the striking force necessary to achieve the similar destruction of Hiroshima and Nagasaki can be estimated. It would have amounted to 1,300 tons of bombs for Hiroshima (75 percent incendiary, 25 percent high explosive), and 600 tons for Nagasaki (25 percent incendiary, 75 percent high explosive).

In addition to the bomb loads, 500 tons (for Hiroshima) and 300 tons (for Nagasaki) of anti-personnel bombs would have been necessary to inflict comparable casualties.

To assure the same coverage of the target area, an additional allowance of 30 percent of bombs would have been required, bringing the total bomb load to 2,100 tons for Hiroshima and 1,200 tons for Nagasaki. Allowing 10 tons per plane, the attacking force required would have been 210 B-29s at Hiroshima and 120 B-29s at Nagasaki.

JAPANESE PACIFIC ISLANDS (Nanyo). The former German possessions in the Pacific, north of the Equator (130° to 175° E. and 0° to 22° N.), over which Japan was appointed mandatory in accordance with the terms of the Treaty of Versailles, 1919. The mandate comprised some 1,458 islands, islets, and reefs, extending over an area of 1,200 miles north to south and 2,500 miles west to east. There are three main groups: (1) MARIANA or LADRONE (14 islands), including Saipan, Tinian, Rota; (2) CAROLINE (577 islands), including Yap, Palau (Babeldoab), Korror, Truk, Ponape, Kusaie; (3) MARSHALL (60 islands), including Jaluit. Total area, 830 square miles. Some of the islands were conquered and occupied during 1944 by United States armed forces. In 1945, following the defeat of Japan, all the islands passed under the control of the Allies. On November 6, 1946, the United States requested that the islands be placed under United Nations trusteeship with the United States as administering authority. Population (1940 census), 131,157 (72,540 males and 58,617 females).

Production and Trade. The main products were

sugar, maize, coffee, phosphates, tapioca, bananas, breadfruits, copra, alcohol, vegetables, fish, forest products and bauxite. Trade (1938): imports were valued at U.S. $8,723,000 (rice, machinery, cloth, oil, wax, wood and wood manufactures, cigarettes, and alcohol were the chief items); exports were valued at U.S. $13,350,000.

Government. Budget (1940): revenue United States $2,564,182; expenditure United States $2,540,228. Under Japanese rule, the administrative affairs of the mandate were managed by a governor who was subject to the direction of the Japanese Minister of Overseas Affairs. Headquarters of the Governor were in Korror, one of the Palau islands in the western Carolines. During 1946, the United States utilized naval officers as administrators. Efforts were made to turn considerable autonomy over to the island residents.

JARVIS ISLAND. A mid-Pacific island (0° 23′ S. and 159° 54′ W.), south of Hawaii; owned by the United States. The island lies in the path of the main steamship lanes and airways from Honolulu to New Zealand and Australia. In former years guano was produced from the island but it remained uninhabited for years until 1936 when the United States Dept. of the Interior set up an aerological station.

JEWISH WELFARE BOARD, National. Organized in 1917 to serve as the united agency of the American Jewish community to provide religious, welfare and morale services to Jewish personnel in the armed forces. The National Jewish Welfare Board (JWB) is also the national association of 288 Jewish community centers and Y.M.H.A.'s and Y.W.H.A.'s in the United States and Canada, with a total membership of 437,000 men, women and young people. Affiliated with JWB in its program of service are 38 national Jewish organizations.

A joint citation, awarded by the U.S. War and Navy Departments to JWB for its "unique and outstanding service" to American servicemen and women, stationed throughout the world during World War II, was presented in May, 1946, at the annual conference of JWB, the first yearly JWB national meeting to be held since the beginning of World War II.

In 1946 JWB, a member agency of USO, operated 80 USO-JWB installations, and served thousands of men and women in the armed forces through its 626 local army and navy committees. At the same time, the 10 JWB hospitality centers in Germany, Austria, France, and China were provided with services by the 58 JWB hospitality center committees in the United States.

Accredited by the U.S. Veterans Administration since 1925 to represent veterans seeking benefits, JWB last year handled 12,230 claims for Jewish veterans and secured initial awards for 4,480 veterans. JWB also provides informational and counseling services to Jewish veterans through local veteran committees, organized in 82 communities throughout the country. Jewish patients in 100 Army and Navy hopsitals were served by JWB staff, chaplains, volunteer workers, and visiting rabbis during 1946. To the 50 chaplains still on active duty with the armed forces in 1946, JWB, which recruited, endorsed, and supervised Jewish chaplains during World War II, sent religious literature and ceremonial items, as well as kosher foods, for distribution among Army and Navy personnel.

The third and final issue of *Fighting for America*, a book which tells the story of Jewish participation in World War II, was prepared by JWB in 1946 and will be published early in 1947. The task of compiling the facts and statistics, on which the three volumes of this chronicle were based, was completed by JWB at the end of 1946.

Plans for the establishment of a permanent national Jewish museum in Washington, D.C., depicting the contribution made by the American Jewish community in all wars of the United States, were authorized by the JWB Board of Directors last year.

By assisting its constituent Jewish community centers and Y's with their program plans and activities, JWB aims to promote the religious, intellectual, physical and social well-being of American Jews and to develop the growth of the American Jewish community. JWB provides these centers with printed program material and specialized aids for the adjustment of veterans, for vocational guidance, and for mass activities. In 1946 JWB made 950 bookings of lecturers, artists and musicians for Jewish communities in this country and Canada; and gave counsel on administration, personnel, and building problems to 93 communities engaged in center and Y building expansion campaigns.

A youth serving organization, JWB in 1946 helped found the World Federation of Y.M.H.A.'s and Y.W.H.A.'s and Jewish Community Centers. Last year it also extended its service for Jewish youth to communities in France and Latin America, sent field workers into those countries, and provided the Jewish communities there with program material.

Officers of JWB: Frank L. Weil, President; Mrs. Felix M. Warburg, Honorary Vice President; Mrs. Alfred R. Bachrach, Lloyd W. Dinkelspiel, Irving Edison, Mrs. Samuel R. Glogower, Mrs. Walter E Heller, Carl M. Loeb, Jr., Donald Oberdorfer, Walter Rothschild, Vice Presidents; Joseph H. Cohen, Treasurer; Robert K. Raisler, Assistant Treasurer; Joseph Rosenzweig, Secretary; Ralph K. Guinzburg, Assistant Secretary; Louis Kraft, Executive Director. Headquarters: 145 East 32nd Street, New York 16, New York.

JEWS AND JUDAISM. Like the rest of the community the Jews of America devoted the first year after World War II to the readjustment of social conditions and the reorganization of their communal life, all of which had been affected by the strain and demands of the weary years of combat. At the same time they had to continue and to extend to a larger scale the work of relief, rescue, and rehabilitation in which re-settlement in Palestine occupies a predominant position. The extermination of about six million brethren by the Nazi hordes which had plunged Europe into the abyss of destruction had cast an unrelieved shadow over the whole of American Jewry; the hapless plight of the surviving men, women, and children in these European lands, with many thousands of the victims still seeking their kinsmen here and in other lands, brought the tragedy all the more vividly to the consciousness of American Jewry.

These tasks, replacing the burdens of the war years, weighed heavily upon the people of Israel in the United States though with the approach of peace the work could be pursued with a sense of ease and a feeling of grateful anticipation of future eventualities. The regular or permanent religious, philanthropic, and cultural endeavors, though to some extent interrupted during the period of war efforts, were nevertheless throughout carried on without any serious abatement. At the same time the knowledge of the destruction of the long-

established Jewish communities in European lands, which with their institutions of learning and intense religious and scholarly activities were always regarded as "reservoirs of the Jewish spirit" quickened the sense of obligation here to replace in this land the religious and cultural possessions which had been lost. With the numbers of Jews now living in the United States the hope is to evolve here a new spiritual center to emulate the religious and cultural aspirations of the vanished communities. Public utterances therefore stressed the need of building new sanctuaries of the spirit in the form of various types of educational organizations and institutions of learning.

In this instance pronouncement was actually accompanied by performance and, to begin with institutions of an academic character, there have been a number of developments of significance, in a sense heralding a new revival of learning. The orthodox theological seminary, Isaac Elchanon Yeshiva, and its more recently established division, Yeshiva College, Samuel Belkind, president, at Amsterdam Avenue and 187th Street, New York, N.Y., has of course been carrying on its work for a number of years, but the expansion of this organization into the Yeshiva University chartered by New York State, coincided with the general advance and enlargement of Jewish religious and cultural institutions. A chain of separate schools devoted to Jewish as well as general study will ultimately constitute the new enterprise.

In a program of broadening the scope of the Jewish Theological Seminary of America, Louis Finkelstein, president, which represents the Conservative wing of Judaism, a plan has been put forth within the last year and a campaign for funds launched for the establishment of a University of Judaism. The organization, at Broadway and 122nd Street, New York, N.Y., with its Jewish Teachers Institute and other departments and faculties is designed to occupy a commanding position in study, research, and scholarship pertaining to the essence and basic sources of religious teachings.

Responding to identical motives for intensification of study and learning as well as the increase of facilities for the encouragement of Jewish youth to take up such studies, the Hebrew Union College of Cincinnati, Julian Morgenstern, president, the center of Reform Judaism, has also witnessed much expansion during the past year Similarly the other Reform theological seminary, the Institute for Jewish Religion, New York, N.Y., Dr. Stephen S. Wise, president, has carried forward with increased zeal and concentration the task of training rabbis and teachers. These four theological seminaries and schools of higher learning have, in accordance with the need and spirit of the time, extended the hospitality of their faculties to distinguished Jewish scholars from Europe who have suddenly been cast out of their life-long pursuits by the Hitler holocaust. The enlargement of their libraries, with the New York Seminary and the Cincinnati College possessing the most notable collections of rare volumes in the world, has been another feature of intensification of scholarly endeavor.

In another sphere of academic enterprise a long-discussed project, the founding of a more general Jewish university in America, has taken shape during the past year in the form of the Albert Einstein Foundation which is to establish the Louis D. Brandeis University, the use of these names being intended both as a tribute to the men whom they represent and as a means of attracting wider support. The undertaking is actuated, to an extent, by the double motive of overcoming certain discrimination which blocks the entrance of Jews into some higher institutions of learning, especially medical schools, and of adding the Jewish identity to the other denominations which originally established a number of the first universities in the United States. The sponsors of this enterprise have taken over the campus and structures of the former Middlesex College at Waltham, Massachusetts, and the directors of the Albert Einstein Foundation, of which S. Ralph Lazarus of New York is president, are now engaged in a campaign for the raising of adequate funds to which many generous contributions have already been received.

In the field of activities carried on by the many congregations, synagogues, and temples of the different denominational groupings within Jewry representative of all the three schools of Judaism—or four if the new type of liberalism called Reconstructionism is to be included—the main and immediate tasks are in the hands of the several federations of synagogues which serve as the centers and the organizational as well as educational agencies of their affiliated places of worship. Though the Reform Jews represent the smaller proportion of the Jewish population their congregations are the better organized and their Union of American Hebrew Congregations, Maurice M. Eisendrath, president, is among the strongest and most active of the agencies. Its effective publication department now issues books of the highest quality. The United Synagogues of America, Samuel Rothenstein, president, speaking for the Conservative or middle-of-the-road element, and the Union of Orthodox Jewish Congregations of America, Samuel Nierenstein, president, serve as guides and leaders to their affiliated congregations, their women's auxiliaries assisting in educational, religious, and philanthropic work of different types. In the interpretation of Judaism and formulation of religious opinion the several Rabbinical associations, from the Orthodox to the Reform, play a significant part, their annual gatherings furnishing a means of discussion and exposition of basic tenets.

The past year witnessed an extension of the organization, in New York and other cities, of *Yeshivas*, the old type of religious schools approximating from high school to college grades entirely devoted to religious and Hebrew study, this trend being accompanied by a considerable increase of Jewish parochial schools, corresponding to such institutions of other religious sects.

The unparalleled destruction of Jewish lives and the unprecedented devastation of communities which World War II has wrought in Europe have left behind in their wake destitution and suffering which cannot easily be described. About 300,000 have concentrated in the different zones and especially the American zone in Germany. Outside of this number Europe now holds a reduced Jewish population of 700,000 exclusive of approximately 2,500,000 persons dwelling in Soviet Russia where political conditions prevent direct intercourse with the Jewries of other lands.

While the war was still in progress and Nazi Germany was continuing its deliberate and ruthless campaign of exterminating all Jews by gas chambers, crematoriums, and other diabolical means, Jewish protective and relief organizations attempted to rescue some of the men, women, and children in Germany, Poland, and other invaded countries who were still within reach of some help and succor. But most of these efforts were frustrated by prohibitive and dangerous war conditions. Only small numbers succeeded in escaping the horrors

inflicted by the assailants and the largest proportion of these ultimately made their way to Palestine despite England's restriction of immigration into the Jewish homeland that, in 1917, it solemnly pledged to help establish. While the guilt for the destruction of the largest portion of European Jewry, as fully confirmed by the Nuremberg trials, rests upon Germany and the other Axis powers, the Allied and associated powers, it is felt by Jewish leaders, are not without blame for failing to back more actively the fitful attempts at rescue. The United States, however, through the special interest of President Franklin D. Roosevelt, made several gestures toward providing havens for refugees, these attempts finally leading up to the establishment of a temporary resting place for about 1,000 persons in Oswego, New York. A directive of President Truman issued on December 22nd, 1945, intended to facilitate the admission of displaced persons resulted in the entrance of only 4,787 individuals—outside of those who entered as part of the regular immigration quotas—although reports of the shipping industry gave the figure as 21,589. However, new steps were taken to provide adequate steamship facilities so as to relieve the crowded and deplorable conditions now prevailing at ports of embarkation.

The work of immediate relief carried on during the war through neutral countries and the post-war activities pursued later on a larger scale devolved mainly upon the American Jewish Joint Distribution Committee, which had gone through similar tragic experiences in World War I. Auxiliary efforts were carried on by several smaller agencies like the Vaad Hazelah formed by orthodox rabbis; this agency, while the war was still on, made special efforts to rescue Jewish scholars, spiritual leaders, and students for the rabbinate in several different countries. The Joint Distribution Committee, made up of representatives from various groups in Jewry, is headed by Edward M. Warburg. It is now operating through its representatives in twenty or more countries, with permanent offices in a number of the larger centers of the surviving Jewish population and in the camps of displaced persons in Germany Trying conditions in Poland, Rumania, and Hungary and other neighboring countries have caused homeless people to drift from one place to another and these wanderers and many Jews making their way from Soviet Russia into Poland and further into Germany have increased the numbers of and aggravated conditions among displaced persons. This problem formed one of the first and most urgent tasks of the American Jewish relief organizations. Thanks to the excellent cooperation of the American Military Government in Germany it was possible to render the required relief and to an extent regulate the sojourn of the homeless people in Germany and to facilitate the movement of those who were in a position to emigrate. On October 7th, 1945 Judge Simon H. Rifkin, New York, of the United States Federal Court, was appointed as advisor on Jewish affairs to General Dwight D. Eisenhower, Commander-in-Chief of United States forces in Europe, and subsequently Rabbi Phillip Bernstein of Rochester, New York, who during the war directed the work of Jewish chaplains in the program of the Jewish Welfare Board, was appointed in a similar capacity by General Joseph T. McNarney. Through the counsel of these men and the efforts of representatives from the relief agencies, conditions of the homeless Jews in the camps were made more tolerable by provisions for food, clothing, and for study, work, and religious observances.

Funds for the relief work of the Joint Distribution Committee in European and other lands as well as for the tasks of resettlement in Palestine have been collected by the United Jewish Appeal, which takes in these two bodies as well as the former National Refugee Service, Inc., now known as the United Service of New Americans, Charles A. Riegelman, chairman. All Jewish forces, regardless of point of view, have joined hands in this drive. The total sum of one hundred million dollars was collected in 1946 and it is planned to campaign for a larger fund during the coming year.

Early in 1946 President Truman had instructed Earl G. Harrison, American representative on the Inter-Governmental Committee on Refugees and former United States Commissioner of Immigration, to inquire into the situation "of those displaced persons in Germany who may prove to be stateless or non-repatriable." The Harrison report, made public on September 29, established two facts: (1) that the displaced persons must be evacuated from the camps in Germany and Austria; (2) that the overwhelming majority of Jews in the displaced persons camps want to go to Palestine. The President sent a letter to Prime Minister Attlee on August 31 in which he concurred with the conclusions of the report and asked that 100,000 immigration certificates to Palestine be granted to "Jews still in Germany and Austria and for other Jewish refugees who do not wish to remain where they are or who, for understandable reasons, do not desire to return to their countries of origin." This letter and the reaction to it of the British Government led to a number of other official steps. (See ZIONISM.)

The "Big Four"—the American Jewish Congress, the American Jewish Committee, B'nai Brith, and the Jewish Labor Committee—among the civic protective organizations working in conjunction with the American Jewish Conference cooperated in 1946 with various Jewish organized forces from different lands, like the Board of Deputies of British Jews and the French Alliance Israelit Universelle, at the Paris Peace Conference in July of this year. Here the treaties adopted with Hungary and Rumania made specific reference to the Jewish demands, and the right of the Jews to ask reparations was acknowledged by the decision under which the Allies allotted $22,500,000 from the German reparation funds to the Inter-Governmental Committee on Refugees for work on resettlement of displaced Jews. Awaiting further confirmation is a decision by which heirless Jewish property in Rumania and Hungary would be turned over to local Jewish communities.

Still aspiring for the unification of all American Jews for future purposes from the point of view of speaking and acting for the whole community in the protection of general interests, the American Jewish Conference through a special sub-committee is now exploring the possibility of creating an over-all permanent organization after the present activities with regard to European refugees and future guarantees of rights for all will have been completed.

Despite ideological differences with the Zionists, who have the sympathy of the largest number of American Jews, the American Jewish Committee and other dissident groups have lately come closer to the Zionist ideal, though from a nonpolitical attitude. Similarly the Central Conference of American Rabbis and the Union of American Hebrew Congregations, which were formerly opposed to the strivings for Jewish national revival, have lately given their endorsement to the idea of a Jewish

spiritual center in ancient Judea. Finding various fields of religious, philanthropic, and cultural work on which they could agree, the large central organizations pool their interests on many occasions. Among the domestic tasks carried by the four civic protective organizations, through joint or separate action, is the effort of combating anti-Semitism and racial and religious prejudice of every form. From this point of view all groups welcomed the following resolution of the United Nations, adopted at its recent session in New York:

"The General Assembly of the United Nations declares that it is in the higher interests of humanity to put an immediate end to religious and so-called racial persecutions and discriminations, and calls on the Governments and responsible authorities to conform both to the letter and to the spirit of the Charter of the United Nations, and to take the most prompt and energetic steps to that end."

BERNARD G. RICHARDS.

JOHNSTON ISLAND. An atoll in the central Pacific, 809 air miles southwest of Honolulu, belonging to the United States. Useful as an advance observation post in the Hawaiian defense system, it is under the jurisdiction of the United States Navy Department. With funds appropriated by Congress in 1939 and 1941, the atoll was converted into a naval base for aircraft and submarines. On May 15, 1941, the island was designated a "naval defensive sea area" and on Aug. 15, 1941, the naval air station was commissioned. During World War II the island remained under the control of United States armed forces.

JOINT BRAZIL–UNITED STATES DEFENSE COMMISSION. A Commission composed of military delegates (Army, Navy, and Air Forces) of the two countries, established in August, 1942. Meetings are held in Washington for the purpose of making staff plans for the mutual defense of the Western Hemisphere. U.S. Chairman: Rear Adm. Marshall R. Greer.

JOINT CHIEFS OF STAFF, U.S. Under the direction of the President, the Joint Chiefs of Staff consult together on matters of joint concern to the armed forces, advise the President as to their use, and take appropriate action to implement his plans and policies as Commander in Chief of the Army and Navy. The Joint Chiefs of Staff comprise the United States membership of the Combined Chiefs of Staff.

Army and Navy Staff College. The Army and Navy Staff College was established pursuant to a directive issued by the Joint Chiefs of Staff on April 23, 1943. Officially opened on August 5, 1943, the College operates under the direction of the Joint Chiefs of Staff. It provides a special course of instruction for specially selected and qualified Army, Navy, and Marine Corps officers in order to increase efficiency in the performance of command and staff duties in unified and coordinated operations of the Army and Navy forces. The College was redesignated the National War College, effective on July 1, 1946.

JOINT MEXICAN–UNITED STATES DEFENSE COMMISSION. A Commission organized Jan. 12, 1942, to study problems relating to the common defense of the United States and Mexico, to consider broad plans for the defense of Mexico and adjacent areas of the United States, and to propose to the respective governments cooperative measures. U.S. Chairman, Maj. Gen. Guy V. Henry, U.S.A.

JUILLIARD MUSICAL FOUNDATION. A foundation incorporated in New York State in 1920, in accordance with the will of Augustus D. Juilliard, to aid worthy students of music, promote the instruction of the general public in the musical arts, and to encourage a deeper interest in music in the United States. Invested trust funds had a book value of about $12,000,000 in 1946; only the income is distributed. Secretary: M. Steilen, 31 Nassau Street, New York 5, New York.

JUSTICE, U.S. Department of. A Department of the U.S. Government which in 1946 had the following divisions and offices.

Office of the Attorney General
Office of the Solicitor General
Office of the Pardon Attorney
Antitrust Division (q.v.)
Tax Division
Claims Division
Lands Division
Criminal Division
Customs Division
Administrative Division
Federal Bureau of Investigation (q.v.)
Bureau of Prisons
Immigration and Naturalization Service
Board of Parole
Board of Immigration Appeals

Attorney General in 1946: Thomas C. Clark. Solicitor General: J. Howard McGrath.

JUVENILE DELINQUENCY. Public interest in juvenile delinquency became intense during the war and is still high. Some of this interest is directed constructively toward improving conditions for young people. Some of it is unconstructive, born of the excitement caused by spectacular crimes of a relatively few boys and girls, and growing on statements about increase in "juvenile crime" that are not supported by facts and on the age-old cliché that each generation of youth is worse than the last. Unfortunately, no statistics exist to show the Nation-wide extent of juvenile delinquency or its increase. An answer to the question of trend is frequently sought in statistics on children brought before juvenile courts, but these statistics have definite limitations for national, State, or local use because they are an incomplete measure of juvenile misbehavior. They are greatly affected by variations in local attitudes, in age jurisdictions of different courts and in court practices, and by wide variations in the extent to which methods of handling problems exist other than reference to the police or to the courts. What these court statistics do show, through year-to-year comparison, is the trend in volume of cases disposed of by a given number of juvenile courts; if used with recognition of their exact nature, they have their value.

Extent. A series of juvenile-court statistics has been maintained since 1926 by the U.S. Children's Bureau. In this series, 364 courts reported both in 1944 and in 1945, making possible a comparison between the two years for this group of courts. The total number of delinquency cases disposed of by these 364 courts in 1945 was 6 percent higher than in 1944; the number of boys' cases was 8 percent higher, while the number of girls' cases was 4 percent lower. In the girls' cases, the decrease for courts serving areas with populations of less than 100,000 was more pronounced (8 percent) than the decrease for courts serving areas with larger populations (3 percent).

Of courts serving areas with populations of 100,000 or more, 76 have submitted comparable data since 1938. For these courts, in the boys' cases, comprising more than four-fifths of the cases disposed of, the increase of 8 percent from 1944 to 1945 reversed a decrease noted from 1943 to 1944 and continued a generally upward trend of several

years. The number of girls' cases increased each year from 1939 to 1943; since then they have decreased, dropping 5 percent from 1944 to 1945.

That public interest remains at a high level is fortunate because the increase in the number of cases disposed of by juvenile courts in 1945 as compared with 1944 indicates that communities should intensify rather than relax efforts put forth during the war to strengthen preventive services for children.

The total number of courts reporting in 1945 differed only slightly from the preceding year and their reports showed no marked changes from 1944 in the relative distribution for each of the factors analyzed. During 1945, 122,851 delinquency cases were disposed of by 374 juvenile courts serving areas representing almost two-fifths of the country's total population, 101,240 boys' cases and 21,611 girls' cases. The greatest concentration of children referred to court was in the 14 to 16 age group. The ages when referred to court were reported in 91,435 of the boys' cases and 18,980 of the girls' cases. Of these, 36 percent of the boys' cases and 43 percent of the girls' cases involved children in the 14 to 16 age group. In 4 percent of the cases the children were under 10.

The reasons for reference to court were reported in 92,671 of the boys' cases and in 19,268 of the girls' cases. Of the boys' cases "stealing," with 42 percent, ranked first in the reasons for reference; "acts of carelessness or mischief," with 19 percent, was next. Of the girls' cases 59 percent were referred to court for "being ungovernable," "running away," or "sex offenses." These three reasons must be considered together, because the first two frequently involve sex offenses and some courts use the term "ungovernable behavior" to avoid recording a sex offense.

The types of disposition were reported in 114,887 of the total number of cases disposed of by these 374 courts. Of these, 43 percent were dismissed, adjusted, or held open without further action; in 30 percent the child was referred to a probation officer for supervision; and in 9 percent, the child was committed to or referred to an institution.

A Change in Reporting. On January 1, 1946 the Children's Bureau initiated a revision of its juvenile-court statistical reporting program in order to make more significant and effective the resulting statistics and to achieve greater efficiency and economy in their collection and tabulation. Under the revised plan, the Bureau discontinued direct collection of statistical reports from individual courts and will tabulate only summary reports received from State agencies concerned with juvenile or probation work, based on individual court reports to the State agencies. This form of collection will extend materially the geographic coverage of the series to include more urban and rural courts in all sections of the United States.

The revised reports will include: (1) a count and analysis of all children's cases—delinquency, dependency and neglect, and special proceedings —disposed of officially and unofficially during the calendar year, and (2) an unduplicated count of the number of different children involved in all children's cases disposed of during the year. Because one child may appear before the court more than once during the year and each appearance is usually counted as another case, this count is important. It will indicate to local social agencies the number of children likely to need services. Reports of this nature will present a better picture of the work of the juvenile courts and will be extremely useful in State and local planning of programs of preventive and treatment services for children.

Another approach to the improvement of statistics on delinquency is an experimental registration of juvenile delinquents undertaken in the District of Columbia by the Children's Bureau in cooperation with the Washington Council of Social Agencies. The experiment employed the technique of central registration of children whose behavior was reported as delinquent by the six official agencies in the city concerned with children's behavior difficulties. The results of this study indicated that a large number of children alleged to be delinquent were not known to the juvenile court during the registration year, having been dealt with by the police or by other agencies without referral to court. The study also indicated that because of duplication in the statistics for any two agencies, central registration may be the only feasible method for making a completely unduplicated count on a community-wide basis of "delinquent" children. Central registration, as yet not thoroughly tested, may be a step toward improved measurement of juvenile delinquency and toward better community planning of services for children.

Legislation. Congress contributed to basic preventive measures by increasing the appropriation for child-welfare services administered by the U.S. Children's Bureau under the Social Security Act from $1,510,000 to $3,500,000. This act, as passed in 1935, provides for grants to the States "for the purpose of enabling the United States, through the Children's Bureau, to cooperate with State public-welfare agencies in establishing, extending, and strengthening, especially in predominantly rural areas, public-welfare services for the protection and care of homeless, dependent, and neglected children, and children in danger of becoming delinquent." The increase will make possible a greater number of child-welfare workers, as yet far too few, whose basic services in a local community can help in his own home a child with behavior difficulties and can stimulate the responsible groups in a community to improve conditions for the welfare of all the children.

Despite the value of this program to children and their parents, limitation of funds and of qualified personnel, particularly during the war, has kept the program relatively small. Only one full-time child-welfare worker paid from Federal, State, or local public funds was available, on an average, for approximately every 25,000 children under 21 years of age throughout the country, as of June 30, 1945. Yet, about 230,000 children, it is estimated, were receiving services from public-welfare workers employed by State or local agencies on June 30, 1946. One-seventh of these children were served by child-welfare workers paid in whole or in part from Federal funds.

The program emphasizes the availability of services locally; getting services to children in their own homes early, while family conditions are improvable; organization of communities for the welfare of all children living there; and, more recently, preventing the social handicapping of children and making services available to them regardless of the economic status of their families, that is, independently of financial assistance. Related to the second concept mentioned, services in their own homes early, is the fact that in the 42 States from which reports were substantially complete, 42 percent of the children receiving services were living with their parents or relatives, 38 percent in foster family homes, 15 percent in institutions, and 5 percent elsewhere.

Other Federal legislation of 1946 will help in getting at the causes of juvenile delinquency and of children's behavior problems. Increased Federal contribution to the program for aid to dependent children under the Social Security Act (administered by the Bureau of Public Assistance, Federal Security Agency) has an effect on the causes growing out of economic deprivation. The National Mental Health Act provides through Federal grants for research and for demonstration mental-health services, part of which are specifically for children and so will give impetus to treatment of as well as measures for preventing the emotional causes of children's behavior difficulties.

In State legislation, Mississippi passed a new juvenile-court law, known as the Youth Court Act. The act provides for better care and protection of neglected children and for the hearing of cases concerning children with behavior problems, not as criminals, but as maladjusted children in need of understanding and guidance, and for furnishing assistance to the court in obtaining the information necessary to implement this service.

Publications. Two reports, significant in this field, were issued during 1946: *Detention for the Juvenile Court; a discussion of principles and practices,* by Sherwood and Helen Norman, a publication of the National Probation Association, and *Children in the Community; the St. Paul experiment in child welfare,* by Sybil A. Stone, Elsa Castendyck, and Harold B Hanson, M D, publication 317 of the U.S. Children's Bureau. The first is a preliminary, partial report of a national study of juvenile detention made in 1945 in order to discover good types of detention care and procedures that detained as few children as possible and for as short a time as possible, in suitable, classified quarters and with recognition of the skill required to deal with children at this critical time in their lives.

The preliminary report is a practical working guide for improving facilities or establishing new ones and will be followed by supplements giving building designs and criteria for evaluating detention facilities as well as practical data on staff, program and discipline, and boarding homes. The full report, when published, will be valuable for civic-minded groups. They will learn of the shockingly bad conditions under which children are detained, sometimes for long periods and without sufficient reasons. They will learn that good physical care is not the only aim in good detention care. The report says of the need for education about detention:

"In most communities there is very little general understanding of the juvenile court, less still of the place of detention care in the work of the court. The notion persists in the mind of the public that a few days in the detention home will persuade a boy to go to school or a girl to stay home at night, or that a few days without their children will persuade parents to take better care of them. It is not only the public that must be dispossessed of the threat and punishment idea of detention, but often the police, the schools, and even probation officers and juvenile court judges As long as this concept persists, people will reject the idea of improving anything about detention except appearances, food, and sanitation. Detention care must be seen as a service which sustains the child at a time of crisis and prepares him to accept the reconstructing experience ahead Until there is widespread acceptance of this view there will be no effective public demand for better budgets, better staff, and a positive approach to the whole problem."

The second publication mentioned reports on an experimental project carried on by the Children's Bureau in St. Paul, Minnesota, from 1937 to 1943. The demonstration was planned to develop experience in early identification of behavior difficulties in children and in the coordination of preventive and treatment services for children in this field that would be applicable in any urban area. The project gave actual services, stimulated and took part in various community activities, and stressed the coordination of health, education, law-enforcement, recreation, and case-work services.

The Year's Points of Interest. Discussion of responsibilities of law-enforcement agencies in the fight to prevent juvenile delinquency indicated a lack of agreement among the enforcement agencies on the question whether they should take on any responsibility for social-service functions in addition to straight police work. Discussions highlighted the interrelations of police departments and other community agencies such as juvenile courts, schools, social agencies, and child-guidance clinics; the training of police officers in the methods of preventing delinquency and in dealing with juvenile offenders at the time of arrest; and development of juvenile aid bureaus in police departments.

Interest in State training schools revived during 1946. They were busy taking stock of themselves after their difficulties of the war days. Few ever adequately staffed, they lost young staff members to the armed forces and older, technically skilled staff members to war industries. Though the numbers of children committed to them may have increased, the schools could not add to their buildings or equipment or even keep them in good repair. Now they are starting to rebuild staffs and plants, and replenish equipment. In doing so, the best administered schools are trying to help the people of their States to understand what training schools are supposed to do and how they can best do it. A training school has an outstanding role in the treatment of children already "delinquent" and needing the therapy of group life. A child is sent there when he is found to be incapable of adjusting to his own home or to some other family home. These schools are not places of punishment or correction. They should be specialized stations for remolding fundamental attitudes and for training for life in the world outside the school.

The schools vary from State to State according to many factors—the economic and social progress of the State, adequacy of funds from the legislature, the caliber of the State's educational system, the number and types of other State institutions for children. The availability of other institutions may save the training school from being used as a catch-all for every type of child who needs institutional training, to the detriment of the children rightly sent there to be reeducated for life.

All the topics mentioned here—and more—were discussed at a National Conference for the Prevention and Control of Juvenile Delinquency held in Washington in November at the invitation of the Attorney General of the United States. His interest grew out of concern with the problem of about 1,500 juveniles under control of the Department of Justice, and the relation between violations of Federal laws by juveniles and community conditions that engender delinquency. The 800 members included representatives of all groups interested in the problem of delinquency.

Some months before the conference, preliminary panels prepared drafts of reports on the current situation and the needs in each of a number of fields concerned with juvenile delinquency. These fields as named in the reports are: Community coordination; juvenile-court law; juvenile-court administration; detention; institutional treatment of delinquent juveniles; role of the police in juvenile delinquency; housing, community development, and juvenile delinquency; recreation for youth; mental health and child-guidance clinics;

youth participation; citizen participation; case-work–group-work services; the church; the school as a preventive agency; home responsibility; rural aspects of juvenile delinquency; and statistics. A panel on press, radio, and motion pictures also met, to report later.

After the opening meeting, each delegate attended sessions of a discussion panel in one of the fields to consider the draft report prepared previously. After the panel had discussed and amended the draft, the chairman of that panel presented a summary of the report and recommendations to the full conference at its closing session. The conference did not vote on adopting these reports, but they were referred to the executive committee for consideration.

The conference created a continuing committee of 33 to stimulate interest and action; but all the agencies and individuals who took part were made responsible for implementing the work at local levels. They were charged with awakening the mind and conscience of every community in the Nation to action that will assure children and youth the conditions for wholesome life.

KATHARINE F. LENROOT.

KARAFUTO. The Japanese part (south of 50° N.) of Sakhalin island; occupied and taken over by the U.S.S.R. following the defeat of Japan by the Allies in 1945. Area, 13,935 square miles. Population (census of October, 1940), 414,891. Chief towns (January 1, 1938, populations): Toyohara, the capital, 37,365; Esutoru, 31,959; Shikka, 24,399; Otomari, 24,269. Chief products: paper, fish, coal, and petroleum.

KELLOGG FOUNDATION. A Foundation established by W. K. Kellogg in 1930 to advance the well-being of children without regard to race, creed, or geographical boundary. Expenditures for year ended August 31, 1946, were $2,023,317.37. Total capital assets on that date were $47,768,867.15.

The Foundation has undertaken and administers the Michigan Community Health Project, a health program involving seven counties in southwestern Michigan. The present program includes also national and international health promotion activities and the granting of fellowships. President and General Director: Emory W. Morris. Headquarters: Battle Creek, Michigan.

KENYA. A colony and protectorate of British East Africa. Area, 224,960 square miles. Population (1944 estimate), 3,940,469. Capital, Nairobi. The territory is administered by a governor, with the aid of an executive council and a legislative council of 40, including 11 elected European members, 5 elected Indian members and 1 elected Arab member. By the Kenya Annexation Order in Council, 1920, the territories of the mainland, excluding the mainland dominions of the Sultan of Zanzibar, were recognized as a colony while the coastal belt rented from the Sultan of Zanzibar remains a protectorate. The British Under-Secretary for the Colonies, Arthur Creech Jones, visited Kenya in July and suggested that certain constitutional changes in Kenya, in line with those taking place in other colonies, might soon come about.

Agriculture, pasturage, forestry and mining are important occupations. The principal crops include coffee, maize, wheat, sisal, tea, flax, and pyrethrum. Hides are exported in considerable amounts. The chief exports (with Uganda) in 1944 were cotton and cotton seed (£5,263,995), mainly from Uganda, coffee, pyrethrum, sisal and tea.

KINGMAN REEF. An atoll in the Pacific Ocean 1,067 miles southwest of Honolulu, Hawaii, owned by the United States. The reef is about eight miles long and the lagoon five miles wide, but only a small area of land remains uncovered at high tide. The Navy Department has jurisdiction over the atoll. Its strategic importance is due to its being the only seaplane base located between Honolulu (1,067 miles to the north) and Pago Pago (1,797 miles to the southwest).

KOREA. A peninsular country in Eastern Asia bounded on the north by South Manchuria, on the extreme northeast by the U.S.S.R., washed on the west by the Yellow Sea, on the east by the Sea of Japan. Korea was a part of the Japanese empire from 1910 until Japan's surrender to the allied forces in September 1945; at that time the area north of 38° north latitude was occupied by Soviet forces, the area south of the 38th parallel by United States forces.

Area and Population. Area: 85,246 square miles. United States area: about 36,700 square miles. Total Korean population as of August 1946 was estimated officially at 27,621,000 persons, of which 18,275,000 were in South Korea. Foreign population in South Korea, exclusive of occupational personnel, was estimated at 10,300. Chief cities: Seoul (Keijo), the capital, 935,464 inhabitants in 1940; Pyongyang (Heijo), 285,965; Pusan (Fusan), 249,734; Chongjin (Seishin), 197,918; Taegu (Taikyu), 178,923; Inchon (Jinsen), 171,161.

Education and Religion. The Koreans have their own spoken and written language. About 40 percent of all adults were illiterate because of the Japanese policy of attempting to stamp out the Korean language. There are many modern schools, and rapid expansion in education is taking place School attendance in South Korea, May 1946, was: elementary, 1,613,826; secondary, 99,308; higher, 10,315. There were 26 colleges and universities in South Korea in April 1946, the largest being Seoul University (formerly Keijo Imperial University). The chief organized religions are Confucianism, Buddhism, and Christianity; Shamanism has a strong hold upon the common people.

Government. Under Japanese occupation, the country was ruled by a Governor-General appointed by the Emperor of Japan, and an administration composed mainly of Japanese. Sixty per cent of the population and the capital, Seoul, is in the American zone, which is governed by American Military Government. The Soviet zone is governed by a Central Executive Committee under Soviet control. On December 27, 1945 an agreement was announced at the Moscow Foreign Ministers' Conference providing for the formation of a Joint Soviet-American Commission to arrange for the establishment of a Korean Provisional Government, the elimination of the 38th parallel division, and the possible institution of a four-power (United States, Union Soviet Socialist Republic, United Kingdom, China) five-year trusteeship. The Commission adjourned on May 8, 1946 without reaching an agreement.

The Moscow Decision in December 1945 of the Foreign Ministers of the United Kingdom, the United States, and the Union of Soviet Socialist Republics, with a view to the reestablishment of Korea as an independent country, provided for the creation of a provisional Korean democratic government which was to take "all necessary steps for developing the industry, transport, and agriculture of Korea and the national culture of the Korean people." The Moscow Decision also provided for

establishment of a joint commission, consisting of United States and Soviet representatives, which was to assist in the formation of the provisional government. In preparing its proposals this Commission was to consult with the "Korean democratic parties and social organizations." The Commission's recommendations were to be presented for consideration by the Governments of the Union of Soviet Socialist Republics, China, the United Kingdom, and the United States prior to final decision by the Governments represented on the Joint Commission.

Provision was made also for the Joint Commission, with the participation of the provisional Korean democratic government and of Korean democratic organizations, to submit proposals for the joint consideration of the Governments of the United States, Union of Soviet Socialist Republics, United Kingdom, and China "for the working out of an agreement concerning a four-power trusteeship of Korea for a period of up to five years." The decision also called for the holding of a joint conference to consider measures establishing "permanent coordination in administrative-economic matters" between the United States command in Southern Korea and the Soviet command in North Korea.

Events, 1946. After forty years of Japanese occupation, Korea found its hopes for independence beset by a variety of problems ranging from the difficulties attendant upon United States and Soviet occupation forces to a chaotic and divergent internal political situation. The promise of freedom in the Cairo Declaration was reiterated by President Truman in August, 1945, shortly before United States troops occupied southern Korea and made contact with Soviet troops at Kinko, on the thirty-eighth parallel. Thereafter, the country was divided into two zones, north and south of the thirty-eighth parallel, with little liaison in 1945 between the two military governments. From the outset, the administrative policies of the two occupation forces differed; the Soviet Union permitted considerable self-government through Communist-dominated executive committees which controlled administrative, industrial, and financial organizations, while the United States assumed and retained control of economic affairs without inviting participation by the Koreans.

The political situation was complicated by a plethora of forty-three political parties. At a conference in Seoul in November 1945, in which all parties were represented, a resolution was passed demanding the end of the dual occupation, independence, and abandonment of the United Nations concept of Korean trusteeship. The welter of political parties were mainly divided into two major groups; one embracing the Korean Provisional Government which was Nationalist and moderate in character, and the other gathering around the Korean People's Government representing the extreme Left under Communist leadership. The Korean Provisional Government under the leadership of Kim Koo was set up in Chungking in 1940, but had not obtained recognition from any of the Allied powers. In the Moscow Conference of December 1945, the "Big Three" agreed to establish a joint commission, consisting of United States and Soviet representatives, to prepare proposals, with the consultation of Korean democratic elements, for the formation of a Provisional Korean Democratic Government. After creation of this Government with the approval of the Union Soviet Socialist Republic, China, the United Kingdom, and the United States, the Moscow agreement envisioned a Four-Power trusteeship of Korea up to five years, during which the Powers would aid the development of Korea toward national independence.

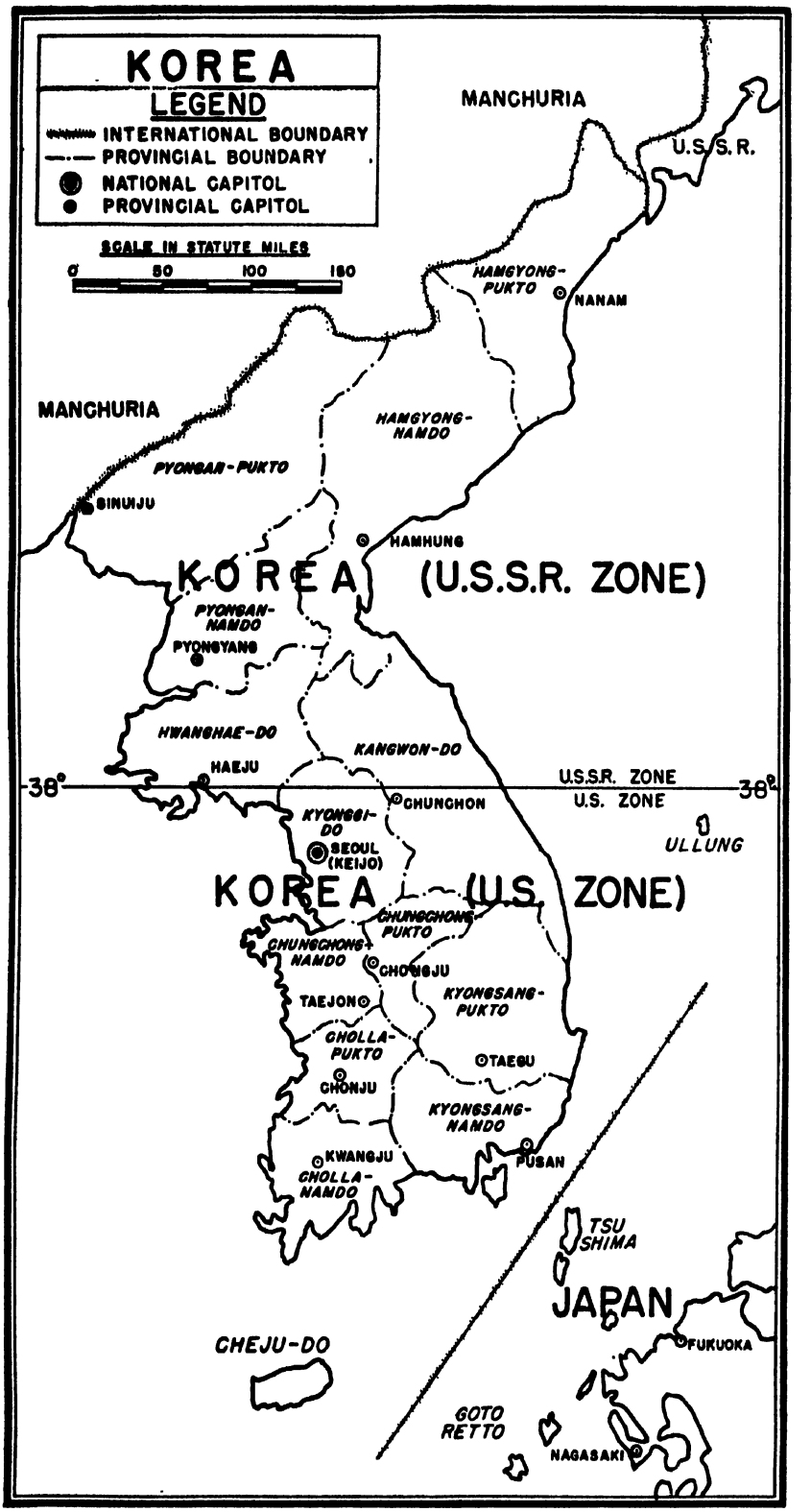
Resentment against occupation authorities and the trusteeship concept found voice in numerous disorders and demonstrations with a threat of a general strike mostly inspired by Kim Koo's unofficial Korean Provisional Government. After reassurance by Lt. Gen. John R. Hodge, commander of United States forces in Korea, that the intention of the Moscow Declaration was to give Korea independence at the earliest possible time, a serious demonstration was called off in Seoul on January 1. The United States attitude toward an immediate possibility that the Koreans could accept responsibility for their own administration was shown by Gen. MacArthur's report to the War Department, in which Korea was depicted as helpless to govern itself because of the numerous political parties and an "almost complete absence of qualified Korean administrators untainted by Japanese collaboration."

The artificial thirty-eighth parallel boundary line that prevented any integrated Korean economy constituted the prime point of discussion between United States and Soviet occupation authorities that met at Seoul on January 16. The meetings, clothed in the greatest secrecy, was divided into two phases: one to discuss implementation of the fourth clause of the Moscow agreements which authorized staff talks on "urgent problems" arising from the Korean division, and the other to work out details for the establishment of a provisional government on a democratic basis.

Midway in the discussions a controversy was caused by a dispatch from Soviet news agency Tass in which the United States command in southern Korea was accused of assuming "a position of inspiring reactionary demonstrations against the decisions of the Moscow Conference." The demonstrations, a manifestation of anti-trusteeship sentiment, provoked leftist charges that the Kim Koo groups were misleading the people. Immediate reply to the charge came unofficially from Gen. MacArthur's headquarters in which Tass was rebuked for joining "a definite program to discredit" the Supreme Commander and force changes in occupation policy. Simultaneously, Lt Gen. Hodge denied the charge and said that his encouragement of free speech and free press might have been misinterpreted.

A joint communique issued on February 8 disclosed that the occupying powers had reached agreement to re-establish contact between the north and south halves. Although the thirty-eight parallel would continue to divide the two commands, the barriers had been lowered to permit inter-zone railroad, motor, and coastwise waterborne transportation and exchange of mail. It was anticipated that Korea's economy would be greatly bolstered by these agreements, for it would permit a flow of agricultural and fishery products into the North and raw materials and industrial products into the South. Coordination between the two zones on matters of economy and administration was promised in the conference report.

More than a month after the conference closed, Lt. Gen. Hodge summarized its achievements, saying that the net results fell short of the aims expected of it by the United States representatives. The American desire to do all that was possible to eliminate the hardships created by the thirty-eighth parallel was curbed, he said, by the Soviet view that the conference should concern itself with a



U.S. War Department

limited number of the most urgent problems. The Soviet request for rice from the South was not unconditionally granted Lt. Gen. Hodge said, because the American zone had received 1,500,000 Korean refugees from Japan and North Korea. The inability of the Americans to guarantee shipments of rice resulted in a Soviet statement, the General said, that "they considered it expedient and necessary to exclude from the agenda questions of electric power, exchange of foodstuffs, raw materials, fuel, industrial equipment, and chemical products." In addition, no decisions were made on free circulation of newspapers throughout Korea, unification of the broadcasting system, a unified currency, and integrated telephone and telegraph communications. In the matter of displaced personnel, the conference agreed to permit citizens to return to their former homes in either zone. As the United States and the Soviet Union prepared for the second phase of their meetings to assist in the formation of a provisional Korean government, the political parties within the American zone made an unsuccessful attempt at unity in a political conference, in late January, sponsored by Kim Koo and his Korean Provisional Government party. A wide group of parties was invited to send representatives, including the "Big Five"—the Korean Democratic Party, the Nationalist Party, the New Korean Nationalist Party, the People's Party, and the Communist Party—but the Communist Party and the People's Party refused to join the meeting. When the conference submitted a list of names for the unification committee, in accordance with the Moscow Conference, the Communists refused to be included, and branded the list as unrepresentative. In February the Communist press reported the creation of the North Korea People's Government in the Soviet zone, with a platform that included "the positive extermination of pro-Japanese and anti-democratic" elements and the "strengthening of administrative organs of all districts by using powerful leaders in all departments." It further called for the requisitioning of land from big landlords for Government ownership, the abolition of the tenant-farmer system and the free distribution of land to farmers.

The list submitted to Lt. Gen. Hodge constituted the Representative Democratic Council of South Korea. Dr. Syngman Rhee, chairman of the group and former chairman of the Korean Commission in Washington, outlined the Council's program in a public statement to the nation. Strongly similar to the political and economic phases of the program in North Korea, Rhee's plan demanded confiscation of public and private property of all Japanese; nationalization of heavy industries, mines, forests, public utilities, banks, communications, and transportations; redistribution of all confiscated lands to the peasants on the basis of ability to work the land; redistribution of large estates with compensation to the owners and payment for the redistributed land made to the Government on a long-term basis, and state supervision of all commercial and industrial enterprises. In addition to a revised tax program, minimum wage laws, and socialized medicine, Dr. Rhee requested a planned economy for the rapid reconstruction of the country, with a suitable price control and rationing program.

The meeting of the joint United States–Soviet Commission for setting up an interim government opened optimistically on March 20 when both Lt. Gen. Hodge and Col. Gen. Terenty Shtykov, chief of the Soviet delegation, stressed their desires to see Korea move towards independence and democracy. As the meetings proceeded through April and the early days of May none of the pertinent questions were resolved and the conference adjourned on May 8. The breakdown came about through discussions concerning the Korean political groups to be consulted in the establishment of an interim government; the United States delegation considered that all parties should be called in to participate, while the Soviet delegation refused to consult with those groups that had demonstrated against or expressed opposition to the decisions of the "Big Three" at Moscow.

After a five-day inspection tour of former Japanese war industries in the Soviet zone early in June, Edwin W. Pauley, United States Reparations Commissioner, reported that he had found the industrial establishments in that zone, for the most part, intact and had seen no evidence of large-scale removal of capital goods. Mr. Pauley's tour was carefully supervised and included examination of nine "targets" of the twenty-six his mission had scheduled for inspection. His inspection covered 60 percent of the industry in the north, including iron and steel, metal working, chemical, power, mines, mill and smelters, textiles, pulp, paper, and food. In two statements on June 4 and 17, Mr. Pauley said:

> "Inasmuch as we had heard, in both the United States and Southern Korea, many rumors of substantial industrial equipment removals, I asked General I.M. Chistiakov the direct question as to whether there were removals, and, if so, what they consisted of. General Chistiakov stated there were no removals of industrial equipment of any kind to the Soviet Union He added that it was a policy laid down by high Soviet officials that there would be no removals and the directions were given to him
>
> "The entire group because of these rumors and their desire to revive Korean industry for the benefit of the Koreans and the people of the Far East were particularly observant to see if there were evidence of such removals having taken place
>
> "Only on two or three occasions did we view anything that would indicate that such removals had taken place, and those only to a minor extent One was in a railroad marshalling yard the first day out where we passed a train loaded with miscellaneous machine tools and two cars of heavy copper wire. This may have been going between points in Korea. The others were power substations, where we noticed the electrical and transformer equipment had been taken out or was packaged ready for shipment. This could well have been for intra-Korean movement."

Aside from the formal meeting between the United States and Soviet Union occupation chiefs, relations in Korea were far from being amicable. On February 21 General MacArthur's headquarters in Tokyo and Lt. Gen. Hodge in Seoul conditionally refused to give a Tass correspondent permission to visit the American zone in Korea. The order would be rescinded, Lt. Gen. Hodge said, when the same courtesies were extended American newspapermen desiring to visit the Soviet zone.

The Soviet consulate in Seoul closed its offices in June after a United States State Department message to Moscow demanded that a United States consulate be established at Heijo, capital of the Soviet occupation zone, or that the Soviet consul cease activities at Seoul.

The first decisive step toward placing responsibility on the Koreans for their own administration occurred on July 9 when Lt. Gen. Hodge announced his support of a proposal to establish a legislative body of Koreans to assist the Military Government in South Korea. Emphasizing that such a body would in no way be considered an initial move toward a separate Government for Southern Koreas, Lt. Gen. Hodge said, "Such a Legislature could exist only as long as the Military Government exists in South Korea. When North and South Korea are unified under a Provisional Korean Democratic Government, the functions of this interim body would be taken over by the Pro-

visional Government and this body would cease to exist."

The reaction of the Communist party and other extreme leftist organizations to the plan, which had been intimated a week earlier by Maj. Gen. Archer L. Lerch, the Military Governor, was to reject flatly the proposal and refuse to participate in its duties, because, they asserted, it would serve only to perpetuate the Military Government.

The issue concerning the duration of the United States occupation was clarified by the State Department in Washington which announced that the American commander in Korea had been instructed to inform the Korean people that the United States would uphold its commitments and "stand by them until these commitments are fully achieved." The United States had no imperialistic aims in Korea, the announcement said, but troops would be maintained until the nation had reached unity, independence, and democracy. It upheld the right of self-determination and freedom of press, assembly, and speech. The objectives of the Military Government were listed to include economic improvements, liberal labor and land reforms, the establishment of a stable currency, the elimination of monopolies, the development of an educational system and the creation of a free judiciary and police.

The statement was followed by two radio broadcasts by Lt. Gen. Hodge in which he lashed out at anti-American individuals and groups who were allegedly sabotaging American efforts to assist Korea. Denouncing the "well-organized propaganda factories working in an all-out effort to discredit the American effort to help in rebuilding Korea," he said that none of these attempts would distract the United States from its avowed policy.

The remarks stimulated denials and a barrage of anti-American sentiment among the extreme leftists. A wave of strikes with demands for higher wages hit the railroads, and additional strikes were threatened in public utilities and printing plants.

Some effort to rehabilitate Korea's economy was seen in a United States loan of $25,000,000 worth of surplus Army equipment, which Korea will repay with dollars earned from exports. The credit was issued for a thirty-year period at 2¾ percent interest. Since the United States recognized no Korean Government, the equipment was transferred to the American Military Government, pending the establishment of a Government. Use of the equipment was limited to the American Zone.

Early in October the prospects for the establishment of an interim legislature for South Korea improved as leaders from both the Right and Left agreed on the formation of a coalition committee. Representation from the Right was complete, but the Left contributed only mild elements, with the Communists refusing to participate. The group, under the leadership of Kim Koo, proposed a body of ninety members, forty-five elected and forty-five chosen by Lt. Gen. Hodge from a list submitted by the coalition committee. The plan included the selection of two representatives from each village and district, who would elect two from representatives from each myun (larger district). In turn, these representatives would elect two from each county and this group would elect provincial representatives on the basis of population. Finally, the recommendations placed responsibility on the proposed legislative body for the enaction of a plan whereby it will replace itself with a legislature composed entirely of representatives of the Korean people chosen through direct universal suffrage.

This plan, which would give Koreans wide, but supervised, control of their Government was approved by the occupation authorities on October 15, which scheduled the first meeting for November 3. The Military Government retained the power to dissolve the Assembly, approve new members and require new elections. In elaborating on the Assembly's functions, Maj. Gen Lerch said he would interfere in Assembly proceedings only if attempt were made to legislate the United States command out of Korea, place unfair responsibilities on the occupation forces, or endanger the Korean economy.

Large-scale rioting and strikes, resulting in the death of between thirty-eight and fifty Korean policemen and an undetermined number of civilians, broke out on October 5 in Taikyu, about 150 miles southeast of Seoul. Demonstrators cut the wire communications, preventing accurate reports, but military authorities asserted that the riots were directed against the local police, because they were the representatives of the occupation authorities. United States troops moved into the area and established martial law. When rioting spread from Taikyu to adjacent areas, United States authorities extended martial law to cover the whole of Kyongsang Pukto Province and moved in additional troops and a reinforcement of 1,100 policemen. United States authorities attributed the trouble to "political agitators," rather than labor difficulties. Sporadic rioting continued in the southernmost areas and several deaths occurred in an attack by 500 demonstrators on a police station at Masan. Another cause for the riots, according to some observers, was the fact that about one-fifth of the police force had worked for the Japanese and had employed roughness in seizing rice from the farmers in accordance with the Military Governments's rationing program.

After martial law had been relaxed on October 10 to permit ten newspapers to resume publication, Lt. Gen. Hodge warned Koreans against further disorders and asked for their co-operation to prevent recurrences, which were being planned by "dangerous anarchists, criminals and agitators." Within a week sporadic rioting burst out in both the northern and southern sections of the United States occupation zone, with reports listing sixty dead, nearly 300 wounded, and about 750 arrests. The disorders appeared to have been inflamed by conditions surrounding the collection, distribution, and price of rice—the staple food that was a focal point for political controversy. All political parties indulged in promises which would provide more rice, higher wages, and wide freedom for their adherents. During the outbreaks, the headquarters of Lt. Gen. Hodge disclosed alleged documents supporting Military Government charges that the riots were Communist-inspired. The documents, reportedly confiscated from arrested Communist leaders, showed that the Communist party had supported the September railway strike, instigated the riots in South Korea, and planned to integrate the struggle "with the city people's fight for rice and the farmers' fight for land reform against the grain collection" system of the Military Government.

At the opening of the South Korean Legislature on December 12 about twenty members of the Rightist Han Koo Democratic party refused to attend the meeting in protest against the invalidation of elections in Seoul and Kangwan Province. New elections were ordered in these areas by Lt. Gen. Hodge because he thought that the original election preparations were inadequate.

During January the extreme right-wing political groups increased their complaints against the continuation of the United States occupation. After the

presentation of an open letter to the United Nations General Assembly on December 9 by Miss Louise Kim, delegate of the Representative Democratic Council of South Korea, which warned of possible civil war unless all foreign troops were withdrawn and Korea given independence, Acting United States Secretary of State Dean Acheson said that the United States intended to maintain its force until the unification of a free Korea could be achieved. A similar declaration of policy was given Syngman Rhee on his visit to Washington. Although Mr. Rhee said he "controlled" all parties and factions in southern Korea, State Department officials said that he had no official capacity.

Production. Reports of the Military Government indicate that economic recovery of South Korea has been limited by lack of technical skill, machinery, replacement parts, and shortages of raw materials. Scarcity of consumer goods, the serious food shortage (necessitating a program of rationing, price control, and importation of a substantial amount of food items from the United States) with a high degree of inflation, also have been serious factors in retarding economic recovery. As of May 31 there were in operation approximately 1,100 textile, chemical, food processing, and machinery factories, employing about 65,000 people, with a total production valued at about two million yen. Hydroelectric power, largely located in North Korea, has been highly developed; 1944 installed capacity was 1,500,000 kilowatts.

Despite the difficulties attendant upon economic activity, South Korea had available for export in August limited amounts of fish products, drugs, raw silk, and some minerals, including fluorite, pyrophyllite, manganese, mica, and graphite. About 71 percent of the people of all Korea were estimated to be engaged in agriculture. Rice, barley, sweet potatoes, and rye are major crops of South Korea. Production for 1946 was curtailed seriously by heavy floods in June and July. Livestock population in 1946 in South Korea was estimated at 484,000 cattle, 39,000 horses, 188,000 hogs, 5,000 sheep, 904,000 fowl.

Foreign Trade. As of the end of July, exports from South Korea totaled only 3,544 metric tons, while imports totaled 102,298 metric tons. Imports consisted primarily of items vital to the health and welfare of the population—food, clothing, fuel, fertilizer, essential machinery, and parts supplied as a part of the Military Government emergency supply program.

All foreign trade was put under Military Government control at the time of occupation. Korea's merchandise trade with Japan during the first 10 months of 1940 was: imports, 1,121,900,000 yen; exports, 614,100,000 yen. Merchandise trade with foreign countries during the first nine months of 1940 was: imports, 168,200,000 yen; exports, 150,700,000 yen. The chief exports are rice, fertilizer, sardine oil, crude copper containing gold and silver, raw silk, soybeans.

Finance. South Korea budget estimates for the fiscal year ending March 31, 1947, were set at expenditures of 11,800,000,000 yen and income of 8,013,000,000 yen, leaving a deficit of 3,787,000,000 yen. North Korea estimates are not available. For the entire country before the war, budget estimates for the fiscal year ending March 31, 1942, balanced at 1,012,577,000 yen. The yen exchanged at $0.2344 in 1940 and 1941 and at $0.0666 in 1946.

Transportation. Railways extended about 3,345 miles on January 1, 1941 (state lines, 2,469; private, 876). South Korea railways extended 1,679 miles on May 1, 1946 (standard gauge, 1,547; narrow gauge, 132). Roads extended 19,048 miles in 1940. Shipping entering the open ports in 1938 totaled 14,677,742 tons.

JOSEPH P. BLANK.

KOREAN LITERATURE, ARTS, AND CRAFTS. Korea was occupied during 1946 by the Soviet and American armies in their respective zones. Under difficult conditions, therefore, the Korean people attempted to regain freedom of cultural development after thirty-five years of exploitation and inhibition under the Japanese. Artistic and literary achievement during the year was subordinated to the practical struggle for political and social survival and to such activities as the creation of an educational system, the formulation of a modern vernacular style, and the preservation of national art treasures, museums and libraries.

Literature. Literary output was largely concerned with the political and social problems of the newly liberated country. Much of it has been journalistic. Over twenty newspapers were published in the capital, Seoul, many of them organs of political parties or ideological groups. Outstanding were the *Chosun Ilbo, Dong-a Ilbo* and *Chosun Inminbo*. Short stories, essays, editorials and commentaries, as well as news despatches filled their pages.

Popular histories, biographies, and historical fiction have been popular. A beginning was made in re-editing the literary classics of the country and in compiling native folk tales and songs.

Modern school texts appeared in the Korean language for the first time. Over three million new texts had been distributed in South Korea alone by August. The Korean Language Research Society, which had been working underground for several years, prepared language texts which employed a modernized horizontal form of the native alphabet invented in 1443 and widely recognized as as ideal phonetic medium The Chindan Society, an historical association, edited texts in Korean history and the social sciences

The Korean National Library, listing over 300,000 items, including many rare old Korean manuscripts and collections, was opened in Seoul in February.

Arts and Crafts. The transition from Japanese to Korean control did not result in damage to the ancient art of Korea owing to special precautions taken by the authorities. The National Museum in Seoul was opened on February 25 and the Kaesong Museum on April 15. Several art treasures dating from the Silla period (57 B.C. to 932 A.D.)—a gold tower-shaped dish, a gold nine-story tower, a crystal bowl and a porcelain vase—were returned to the National Museum. Similar steps were taken to preserve other national monuments.

Native crafts, for which Korea has long been famous, such as inlaid lacquer, brass ware, ceramics, basket-ware and matting, enamelling and chest-making, are being slowly revived. The Japanese had encouraged some of these crafts but since the products were usually distributed with Japanese labels they were not known as Korean. With the liberation of Korea the native crafts have been greatly stimulated and a beginning has been made for the recovery of Korea's reputation in the Far East for workmanship and artistic performance.

EVELYN B. MCCUNE.

KURE (Ocean). An island in the Pacific located 56 miles northwest of Midway Islands. It is a coral reef having a circumference of 14.7 miles. By Exec-

utive Order the island was placed under the jurisdiction of the U.S. Navy Department as of February, 1936.

KURILE ISLANDS (Chishima). A chain of 47 islands reaching from the Japanese island of Hokkaido to the tip of the Kamchatka peninsula in the eastern Asiatic U.S.S.R. The most important islands are Kunashiri, Etorofu, Uruppu, Shimushiru, and Paramushiro. Total area: 3,944 square miles. Population: 5,000, exclusive of a large number of hunters and fishermen who enter the islands from the south during the summer. The islands were occupied by U.S.S.R. after the surrender of Japan in 1945. According to the text of a secret Yalta agreement (made public February 11, 1946) signed by the "Big Three" at Yalta on February 11, 1945, "The Kurile Islands shall be handed over to the Soviet Union."

KUSAIE. An island in the eastern Carolines of the Japanese Pacific Islands; under the control of the United States following the defeat of Japan in 1945. Area, 45 square miles. There is a fine harbor with large commercial piers. On November 6 Kusaie was included in the Pacific islands that the United States requested be placed under United Nations trusteeship with the United States as administering authority.

KWANTUNG. The territory occupying the southern part of the Liaotung peninsula in Manchuria, leased from China by Japan; surrendered by Japan in 1945 to Allied armed forces. During 1946 the territory was the scene of heavy fighting between Chinese Communists and Nationalists. Area, including 40 adjacent islands, 1,338 square miles. Population (census of October, 1940), 1,367,334. Chief towns (1938 populations): Dairen, 515,743; Port Arthur (Ryojun), 145,286; Pulantien; Kinchow. The chief industries are agriculture, fishing, and salt manufacture.

LABOR, U.S. Department of. A Department of the U.S. Government which in 1946 consisted of the following principal bureaus and divisions:

Bureau of Labor Statistics
Division of Labor Standards
National Wage Stabilization Board
Retraining and Reemployment Administration
Shipbuilding Stabilization Committee
U.S. Conciliation Service
U.S. Employment Service
Wage Adjustment Board
Wage and Hour and Public Contracts Divisions
Women's Bureau

Secretary of Labor: Lewis B. Schwellenbach. See articles on CONSUMERS' COOPERATIVES; LIVING COSTS AND STANDARDS.

LABOR CONDITIONS. The year marked a continued relaxation of governmental control over labor relations and labor conditions during a period of reconversion to peacetime activities. It saw the passing of governmental control of wages and a general return to free collective bargaining. Shifts in employment from wartime to peacetime activities were substantial and the distribution of employed workers in large measure reflected pre-war patterns. Employment declines in war industries were offset by increases in employment in other industries, particularly in construction. Despite the large numbers of persons returning to civilian life from the armed forces, unemployment increased but slightly. At the end of the year, unemployment was estimated at 2,120,000. Basic wage rates and actual earnings increased substantially. Hours of labor, on the other hand, decreased slightly. Serious strikes in several basic industries took place and the time loss due to strikes and the number of workers involved in such strikes were the greatest in any year in American history. In Canada wage stabilization controls were also dropped. There was likewise a substantial increase in the time loss due to and the number of men engaged in strikes. Great Britain continued wartime controls. In Britain, however, strikes declined in number and duration as well as in the number of persons involved.

Employment and Unemployment. In the United States changes in the composition of the labor force and significant shifts in the occupational distribution of employed workers marked the gradual restoration of pre-war occupational patterns. Millions of men left wartime pursuits such as military service or jobs in war production for peacetime activities. At the same time many women and girls left the labor force to return to household tasks or to school. Thus, the total labor force (including those in military service) dropped from 66.5 million in August 1945 to 60.3 million in December of 1946.

Swelled by the demobilization of the armed forces the civilian labor force increased by 4 million over V-J day to reach 58.4 million by December 1946. At that date 49,100,000 persons were engaged in non-agricultural employment and 7,210,000 in agriculture. Between August 1945 and August 1946 10.5 million servicemen returned to civilian life. Unemployment increased slightly with approximately 2,120,000 idle at the end of 1946.

Employment declines in shipbuilding, aircraft and transportation equipment (except automobiles) were more than offset by gains in employment in other industries such as lumber, furniture, textiles, and rubber, as well as in trade and service activities. Employment on construction increased from 1,064,900 in August of 1945 to 2,321,400 by August of 1946.

There were approximately 56,000 foreign workers in the country in 1946, all of whom were engaged in agricultural labor. Approximately 39,000 of these were Mexican laborers and slightly over 10,000 were Jamaicans.

ESTIMATES OF THE CIVILIAN LABOR FORCE, AGRICULTURAL AND NON-AGRICULTURAL EMPLOYMENT IN THE UNITED STATES IN OCTOBER 1943, 1944, 1945, 1946

(Millions of Persons 14 Years and Older)

Labor Market Status and Sex	*October 1943*	*October 1944*	*October 1945*	*October 1946*
Total Labor Force*	52.6	52 9	53.1	59 3
Employed*	51.9	52.2	51.6	57.4
Non-agricultural Industries	41 2	43.5	42 8	48 8
Male	26.7	27.3	27 0	33.9
Female	14.5	16 2	15 7	14.9
Agriculture	10 7	8.8	8 8	8.52
Male	8.8	6.8	6.6	6 67
Female	1.9	2.0	2.2	1.85
Unemployed	0 7	0.6	1.55	1.95
Male	0 4	0 3	0.93	1.54
Female	0 3	0.3	0.62	.41

* Excludes institutional population and armed forces.
Source: U. S. Department of Commerce, Bureau of the Census.

In Canada the index of employment declined from 175.5 in June 1945 to 169.9 in June of 1946. Total employment in June of 1946 was 4,702,000 with 126,000 persons estimated as unemployed.

In Britain the total working population declined slightly to 20,322,000 in May of 1946 from the total mid-1945 figure of 21,569,000. The number of insured persons registered as unemployed in-

creased from 103,000 in mid-1945 to 376,000 in May 1946.

Women Workers. By one year after the war's end, although the civilian labor force increased by 5,650,000, the number of women in the civilian labor force decreased by 2,160,000. The percentage of women in the civilian labor force dropped from 36 percent in August 1945 to 29 percent in August 1946. Withdrawals of women from the labor force during this period were estimated at 3¾ million. The greatest concentration of these withdrawals was in the 20–34 age group, many of which were attributable to the rejoining of husbands returned from the services and to high marriage and birth rates. Nevertheless factories employed 620,000 more women than before the war and the number of unemployed women a year after the war's close had increased by only 600,000.

Women's average weekly earnings, as reported by the National Industrial Conference Board for 25 selected manufacturing industries, were $34.86 for August 1946 as compared with $32.49 in August 1945. Women's average hourly earnings for the same month were 90.4 cents as compared with 79.4 cents in August 1945, while women's average weekly hours for August 1946 decreased to 38.5 from 40.9 for August 1945.

Rhode Island passed an equal pay law prohibiting sex discrimination in payment of wages. Proposed Federal legislation requiring the payment of equal pay for equal work, was reported favorably by the respective labor committees of the House and Senate but was not debated before Congress adjourned.

Child Labor. The year following the close of the war showed a decline in the employment of child labor from its wartime peak. In April 1945, approximately three and one-half million children of ages from 14 through 17 were at work. By April 1946, the number of children in ages from 14 through 17 had declined to two and one-fourth million. The downward trend in high school enrollment ceased before V-J day and in 1946, high school enrollment began to increase. There were approximately 6,200,000 attending high school in the Fall of 1946, an increase of nearly 300,000 over 1945.

The trend toward the removal of wartime relaxation of child labor regulations continued. *Georgia* enacted a new child labor law which increases from 14 to 16 the minimum age for work at any time in mills, factories, laundries, manufacturing establishments and work shops. The law also establishes a 16-year minimum age for employment during school hours and a 14-year minimum for work outside school hours in any gainful occupation except that under certain conditions boys 12 and 13 may work outside school hours in wholesale or retail stores. A maximum 8-hour day, 40-hour week was set for minors under 16. *California* repealed the Minors' Emergency Employment Act and revoked all permits issued thereunder. *Massachusetts* passed a law regulating the hours and conditions of labor by minors on farms by specifying that no minor under 14 years of age shall be employed on a farm more than 4 hours a day, or 24 hours a week, except on a farm operated by a relative by law or marriage.

Inspections of establishments as to compliance with the child labor provisions of the Fair Labor Standards Act showed that, although the actual number of minors found illegally employed in the fiscal year ending June 30, 1946, was less than the number found in the year ending June 30, 1945 (9,538 as compared with 13,289), they amounted to over a thousand more than the number (8,436) found in the war year ending June 30, 1944. Actually a higher proportion of the minors found employed by inspectors in 1946 were illegally employed than in 1945. In 1946, of the 79,588 minors in establishments inspected, 9,538 or 12 percent were illegally employed; in 1945, of the 137,102 minors employed, 13,289, or 9 percent, were illegally employed. In 1946 there was also an increase over 1945 in the proportion of the illegally employed minors who were under 14, and in the proportion of minors employed without the proper age certificate.

Wages and Working Hours. Basic wage rates in manufacturing rose 16 percent in the first years of peace. Between V-J day and May 1946, the wage rates of all American workers advanced on the average by about 11½ cents. During the same period, the wage rates of workers employed in manufacturing industries advanced about 14½ cents. In the trade and service industries the average wage rate increase was slightly under 3½ cents per hour. By November 1946 gross average hourly earnings had reached $1.139, an average increase in hourly earnings of 15.1 percent over November of 1945. Average weekly earnings increased to $45.74 in November, more than $4.85 above the figure for September 1945, 97 percent above the January 1939 figure of $23 19. Proposed amendments to the Fair Labor Standards Act providing for the raising of the legal minimum wage to 65¢ per hour failed of enactment by the Congress.

AVERAGE HOURS AND EARNINGS OF FACTORY WORKERS, SELECTED MONTHS, 1939–1946

Month and Year	*Weekly Hours*	*Hourly Earnings*	*Weekly Earnings*
January, 1939	36 7	$0.632	$23.19
January, 1940	37 5	.655	24 56
January, 1941	39 0	.683	26 64
January, 1942	41.7	.801	33 40
January, 1943	44 2	.919	40 62
October, 1943	44 4	.963	42 76
January, 1944	45 2	1 002	45 29
October, 1944	45 6	1 031	46 98
January, 1945	45.4	1.047	47.52
October, 1945	41 6	.985	41 02
January, 1946	41 1	1 004	41 27
October, 1946	40 4	1.130	45 68

Source U. S. Bureau of Labor Statistics.

Average weekly hours worked in the United States decreased slightly to 40.2 in November, as compared with 41.3 in November 1945.

In Canada, weekly earnings in manufacturing averaged $31.67 in June of 1946 as compared with $32.10 in the same month of 1945. Average hourly earnings for June of 1946 were $.691 as compared with $.703 in June of 1945. Average hours worked per week dropped to 42 in June 1946 from 44.3 in June of 1945.

In Britain, due to a decrease in overtime worked, weekly earnings declined in January of 1946 to 114s. ld., a decrease of 11% since July of 1945. Average hourly earnings in January were identical with those of July 1945, 20s. 3d. Average hours worked declined from 47.4 in July of 1945 to 45.8 in January of 1946.

Strikes. In the United States the year 1946 saw serious strikes in many basic industries. Illustrative were the strikes in the automobile, steel, meat packing, electrical manufacturing, coal, railroads, farm-equipment, and the maritime industries. The number of strikes was greater than in 1945 and the number of workers involved and the number of man-days reached record highs. For the entire year the number of strikes was 4,700 as compared

with 4,600 in 1945 while the number of workers involved increased by 1,325,000 and the number of man-days lost increased more than three times.

Most of the strikes took place in the early part of 1946, and as in the latter part of 1945, were motivated by a desire to offset losses in hours worked, overtime and shift premium pay through the medium of substantial wage increases. In the largest strike on record the steel industry was virtually shut down in January 1946 by a strike of the United Steelworkers of America (CIO) involving some 750,000 workers and a demand for a wage increase of $2.00 per day. Prior to the strike the United States Steel Corporation had refused to accept a proposal by President Truman that a wage increase of 18½ cents per hour be made the basis for settlement. In February, however, after the Government had re-examined its wage-price policy, an agreement was reached providing for a wage increase of 18½ cents per hour. The settlement was based on an average price increase of $5.00 per ton announced simultaneously with the announcement of the adoption of a revised national wage-price policy.

The work stoppage in the automotive plants of the General Motors Corp., which began November, 1945, with a demand for a 30 percent wage increase and involved some 200,000 workers, members of United Automobile Workers (CIO), continued into 1946. In January a presidential fact-finding board recommended a wage increase of 19½ cents per hour or 17½ percent. The recommendation was rejected by the company. An agreement was finally reached in March providing for an increase of 18½ cents per hour, equalization of wage rates, improved vacation pay and overtime pay for work on the seventh day.

In January approximately 125,000 workers, members of the United Packinghouse Workers (CIO) and the Amalgamated Meat Cutters and Butcher Workmen of North America (AFL) began a strike affecting meat-packing establishments throughout the country. The companies involved in the strike were the five largest meat-packing firms—Armour and Co., Cudahy Packing Co., John H. Morrell and Co., Swift and Co., and Wilson and Co., as well as a number of smaller companies. The CIO Union demanded a wage increase of 25¢ per hour and the AFL asked for a minimum wage rate of $36.00 per week with proportionate increases in rates above the minimum. On January 17 the Secretary of Labor appointed a fact-finding board to investigate the dispute and on January 24, with negotiations still unsuccessful, President Truman ordered the seizure of the strike-bound meat-packing plants by the Secretary of Agriculture. Almost immediately after the issuance of the seizure order the employees returned to work. In February the fact-finding board recommended a wage increase of 16¢ per hour which, after approval by the National Wage Stabilization Board was put into effect immediately by the Secretary of Agriculture. Subsequently, the seized plants were returned to their owners.

In the bituminous coal industry the United Mine Workers of America (AFL), struck on April 2 because of the failure of the mine operators to agree to a union proposal for the establishment of a security and welfare fund to be financed by a royalty of 10¢ per ton on all coal mined. The stoppage involved some 350,000 workers. The mines were seized by the Government on May 22 but the workers did not return to the mines until an agreement was signed on May 29 by the Secretary of the Interior and union representatives to cover the period of Federal operations of the mines. The principal terms of the agreement called for a wage increase of 18½ cents an hour and a health and welfare fund to be financed by the payment of 5¢ per ton on all coal mined, the fund to be administered by three trustees, one selected by the union, one by the Coal Mines Administrator, and the third by the other two.

In May 1946 a stoppage of work by members of the Brotherhoods of Locomotive Engineers and Railroad Trainmen brought all major rail traffic to a standstill and resulted in the idleness of approximately 350,000 railroad employees. The two unions had rejected recommendations of an emergency board appointed under the Railway Labor Act and had submitted demands for a 25 percent gain in wage rates with a minimum increase of $2.50 per day, as well as other adjustments, involving a total of 44 changes in working rules. The emergency board's recommendations, submitted to the President on April 18, called for wage adjustments for the trainmen and locomotive engineers of 16¢ an hour or $1.28 per basic day and returned most of the union's demands for changes in the working rules to the parties for further negotiations. When negotiations failed the President, on May 17, issued an Executive Order seizing all major railroads. On May 23, leaders of the trainmen and engineers rejected a compromise proposal of the President for an 18½¢ an hour wage increase and withdrawal for one year of all requests for changes in working rules. On May 25 the President appeared before a joint session of Congress seeking emergency legislation giving him power to prevent future strikes, including authority to draft striking workers into the Army. Almost simultaneously with his appearance before Congress, the union officials signed an agreement incorporating the President's proposal and union members returned to work. On May 26 the railroads were returned to private control.

In Canada, as in the United States, there was a substantial increase over the year 1945 in the number of workers involved in strikes, as well as in the number of man-days lost due to strikes. For the first eight months of 1946 there were 165 strikes beginning during that period involving 124,774 workers, with a loss of 3,411,833 man-days.

In Great Britain, on the other hand, the number of strikes diminished as well as the number of workers involved in strikes and the number of man-days lost. For the first eight months of 1946 the number of strikes beginning in the period was 1498, with 369,800 workers involved in such strikes and a loss of 1,496,000 man-days.

Collective Bargaining and Government Control In the United States difficulties presented in the settlement of the steel and other strikes in January and February led to a modification of the National Wage Price Policy in February 1946. On February 14, President Truman issued an Executive order providing new criteria for the approval of wage or salary changes which looked toward price adjustments. Any wage or salary changes consistent with the general pattern of wage or salary changes established in the industry or local labor market area between August 18, 1945 and February 14, 1946 could under the terms of the order, be approved by the National Wage Stabilization Board. If no such general pattern existed, the Board was authorized to approve such increases as were necessary to eliminate gross inequities as between related industries, plants or job classifications or to correct substandards of living or disparities between the increase of wage or salary rates since

STRIKES IN UNITED STATES, CANADA AND GREAT BRITAIN, 1940 TO 1946

Country and Year	Strikes	Workers Involved	Man-Days Idle
United States [a]			
1946*	4,700	4,650,000	113,000,000
1945*	4,600	3,325,000	35,000,000
1944	4,956	2,115,600	8,721,000
1943	3,752	1,980,000	13,500,000
1942	2,968	840,000	4,180,000
1941	4,288	2,360 000	23,050,000
1940	2,508	577,000	6,700,000
Canada [b]			
1946 [d]	200 [d]	135 538 [d]	4,496 620 [d]
1945*	182	90,509	1,478,311
1944	189	77,700	502,000
1943	402	218,400	1,040,000
1942	354	114,000	450,000
1941	231	87,000	434,000
1940	168	60,000	266,000
Great Britain [c]			
1946	2,191	528,700	2,156,000
1945*	2,282	530,000	2,830,000
1944	2,185	850,000	3,700,000
1943	1,785	557,000	1,810,000
1942	1,303	457,000	1,530,000
1941	1,251	360 000	1,080,000
1940	922	299,000	940,000

* Preliminary, subject to revision. [a] U S Bureau of Labor Statistics [b] Canadian Labor Gazette [c] British Ministry of Labor Gazette [d] Through November of 1946.

January 1941 and the increases in the cost of living from that date to September 1945. The Board was empowered to fix special standards for the approval of wage or salary increases in other cases with the approval of the Stabilization Administrator. The Stabilization Administrator was empowered to specify classes of increases by regulation which might be made effective without prior approval of the Wage Stabilization Board and without waiver of rights to ask for price relief if, in the judgment of the Administrator, such classes of increases would have no unstabilizing consequences. The making of wage or salary increases without prior approval of the National Wage Stabilization Board constituted a waiver of any right to use such an increase as a basis for seeking higher prices.

On November 9, 1946, the President announced the removal of most controls on prices and the removal of all controls on wages.

In Great Britain, manpower controls under the Essential Work Orders which covered more than 8,000,000 workers at one period of the war were withdrawn from most industries and services with the exception of basic industries that might otherwise be critically short of manpower. By August of 1946 the number of workers still under the Essential Work Orders had been reduced to approximately 2,300,000.

Considerable controversy arose following a September decision of the London Passenger Transport Board to employ in the future in the grades covered by its agreement with the Transport and General Workers' Union only members of that union. Following a strike in 1937 by the London Transport Workers' Union, a group of dissatisfied workers who opposed the decision to return to work formed a dissident union. At the demand of the Transport and General Workers' Union who threatened to strike if the Board did not employ in the future only members of the TGWU, a decision was made by the Board to grant a closed shop to the union.

During 1946 the Trade Disputes and Trade Unions Act of 1927 was repealed. That Act was passed after the general strike of 1926 and prohibited a strike or lockout as illegal if (1) it had any object other than the furtherance of a trade dispute within the industry which the strikers were engaged and, (2) was designed to coerce the government either directly or by inflicting hardship on the community. The Act also placed limitations on the rights of permanent civil servants to belong to trade unions and on the collection of political levies.

At the end of November Canada abandoned all wage controls.

In May 1946 the Iranian Council of Ministers adopted a decree assuring workers in the same factory or trade the right to form unions. Unions are required to register their articles of association and as a penalty for exceeding its rights or disturbing the public peace a union may be required to elect new officers or may be dissolved or suspended. Violence in connection with strikes is forbidden. Provision is made for compulsory arbitration of disputes by factory councils representing the workers, the employers and the Department of Labor. Strikes and lockouts are forbidden pending arbitration and violation of the law entails dismissal or the taking over of the plant by the government. All agreements reached are required to be put in writing. Hours of work are fixed at forty-eight a week, overtime to be paid at thirty-five percent above the regular rate, with regulation of the total amount of overtime to be permitted by the Department of Labor. There was also established a Department of Labor in the Ministry of Commerce and Industry with power to make safety and health regulations and to fix minimum wage rates which shall cover the living costs of a family. The granting of a weekly pay day of rest and a paid annual vacation is required as well as payment for six specified holidays.

Labor Movements. In 1946 in the United States, both the AFL and the CIO held conventions. The sixty-fifth convention of the AFL was held in Chicago from October 7 to 17th. The Federation reported a dues-paying membership of approximately 7,100,000. It adopted resolutions condemning communism, demanding termination of war-time wage controls and the existence of the National Wage Stabilization Board, urging increased social security benefits, and the enactment of health insurance legislation. Other resolutions condemned the World Federation of Trade Unions as a "reactionary development," established an AFL International Department, opposed the lowering of bars to immigration, and favored an increase in the minimum wage rate under the Fair Labor Standards Act. The Convention also advocated the establishment of a permanent Fair Employment Practices Commission, the establishment of a five-day, 30-hour week and the improvement of standards of workmen's compensation legislation.

The Congress of Industrial Organizations held its convention in Atlantic City in November 1946. The Congress passed resolutions "resenting and rejecting" communist efforts to interfere in union affairs, urging the end of stock piles of atomic bombs, demanding as imperative substantial wage increases, and denouncing the use of injunctions in labor-management disputes.

In manufacturing industries slightly over sixty-seven percent of all production wage earners were employed under union agreements by January 1946, compared with sixty-five percent at the beginning of 1945. In non-manufacturing industries the workers covered by union agreements at the beginning of 1946 constituted about thirty-four percent, an increase of about one percent as compared with January 1945. By January 1946 of about 29,000,000 workers engaged in occupations in which unions were organizing, some 13.8 mil-

lion workers in the United States were employed under written collective bargaining agreements. Although the total number of workers covered by collective agreements decreased slightly, the ratio of those covered by such agreements to the total number employed and eligible for coverage increased from forty-seven percent at the end of 1944 to forty-eight percent at the beginning of 1946.

The proportion employed under maintenance of membership clauses increased from twenty-seven percent at the beginning of 1945 to twenty-nine percent at the beginning of 1946. About thirty percent of the workers were employed under closed and union shop provisions compared to twenty-eight percent under such provisions at the beginning of 1945. Union shop clauses without hiring preference accounted for fifteen percent as compared to eighteen percent at the beginning of 1945.

In October 1946 the British Trades Union Congress held its seventh-eighth annual conference at Brighton, England. The Congress reported a membership of 6,671,120, a net increase for the year of 95,000. Resolutions were adopted demanding the establishment of a 40-hour week, favoring the severing of economic and diplomatic relations with Spain, endorsing the government's foreign policy but criticizing the denazification program in Germany and the deterioration of relations with the Soviet Union. The Conference also approved a statement of the General Council on the closed shop. The statement indicated that there was no exclusive right to organize by any one union where other unions had built up organization side by side. However, the statement emphasized that the Trades Union Congress would refuse to recognize so-called break away unions. The statement indicated that the Trades Union Congress is in favor of one hundred percent unionism in the sense of obtaining one hundred percent membership in a plant, but that no union is entitled to a closed shop against other bona fide unions having members in an industry.

The International Labor Organization held a Maritime Conference at Seattle, Washington, June 6 to June 29. Among the conventions adopted were conventions establishing a minimum monthly wage and maximum hours of work for seamen. Other conventions adopted covered food and catering for foods, the certification of ships' cooks, medical examination of seamen, crew accommodations on board ship, social security, the certification of able seamen and pensions for seamen.

In September the President announced the nomination of a representative of the American Federation of Labor as the labor representative at the twenty-ninth conference of the International Labor Organization to be held at Montreal, beginning on September 19. The CIO, thereupon, announced that it was severing all connections with the ILO and would not participate in the work of that organization. The Conference met as scheduled and approved a draft agreement defining the terms of the relationship of the ILO with the United Nations, adopted a budget of $3,733,000 for 1947 operations, adopted an instrument for the amendment of the constitution and also adopted four conventions. The conventions adopted provided that children and young persons up to the age of eighteen working or employed in industrial and non-industrial occupations, must not be admitted to employment unless they have been found fit for work through medical examinations. In occupations involving high health risks, medical examination and re-examination would be required until the age of 21. Other conventions restricted night work of children under the age of 14 and those over 14 subject to full time compulsory school attendance.

The Executive Bureau of the World Federation of Trade Unions met in Washington, D.C., September 20 to 24, 1946. The Iranian and Philippine Trade Unions were admitted to membership. The Bureau condemned the activities of the Greek Government with reference to trade unions and announced its support of Greek workers in their efforts to establish free trade unions. Resolutions condemning Spain and urging the establishment of a stable and lasting peace were adopted. The General Conference of the WFTU was held in Paris on December 10 to 12, 1946.

The Danish General Confederation of Labor met in Copenhagen in May 1946 and reported a membership of 604,319 at the end of 1945. The Conference adopted resolutions supporting the struggle of the Spanish people against Fascism, demanding the enlarging of the scope of collective agreements, urging the importation of increased amounts of raw materials and the planning of production for full employment.

The Norwegian General Confederation of Labor held a Congress at Oslo in May 1946, its first meeting since the liberation. Three hundred sixty delegates, representing some 370,000 workers, attended the Congress. Resolutions were adopted urging increased modernization of industry and the establishment of trades schools.

The twenty-sixth National Congress of the French General Confederation of Labor took place in Paris in April 1946. Over 1,000 delegates attended. A membership of five and a half million was reported, representing the total membership of some 16,000 unions. The Congress adopted a resolution calling on the constituent assembly to adopt bills relating to the nationalization of private banks and insurance, and the reform of the Bank of France, as well as resolutions urging protection of young workers and women and the adoption of social legislation.

The Economic and Social Council of the United Nations authorized the World Federation of Trade Unions and the American Federation of Labor to nominate representatives as observers at all public meetings of the Council. The request of the WFTU for full participation in the work of the Council was denied but consultative rights were granted.

Federal Labor Legislation. For the first time since 1943 legislation substantially modifying the national labor policy passed both Houses of the Congress, but a Presidential veto was sustained by the House and the so-called Case bill did not become law. That bill as passed by both Houses of Congress, provided for the establishment of a five-man Federal Mediation Board independent of, but housed within the Department of Labor, to which would be transferred the conciliation and mediation functions of the Department. The Mediation Board was authorized to proffer its services for the purpose of aiding in the settlement of labor disputes affecting commerce. Once the Federal Mediation Board had intervened, there would be imposed a 60-day waiting period during which strikes or lockouts would be prohibited unless mediation were concluded earlier.

The bill also provided for the creation of emergency commissions by the President in public utility disputes. In addition, the bill also contained provisions amending the so-called Anti-Racketeering Act, to remove exemption of certain labor un-

ion activity illustrated by the conduct found by the Supreme Court in *United States* v. *Local 807* not to be within the scope of that Act. In that case, members of the union met non-union trucks entering New York City and required the trucks to be turned over to union members to drive for part of the trip within the City. If non-union truck drivers refused to comply with this demand, the trucks were held up until union wages were paid to union members even though their services in driving the trucks were not accepted. The Court found that an exception in the Anti-Racketeering Act for payment of wages by a bona fide employer to a bona fide employee protected this type of conduct. In addition, the Case bill contained provisions restricting contributions to welfare funds to be administered solely by an employee representative, removing the protection of the National Labor Relations Act from supervisory employees, making unions and employers liable in suits brought in any United States court for violations of collective bargaining agreements, and making secondary boycotts violations of the anti-trust laws.

The section of the bill amending the Copeland Anti-Racketeering Act was later passed, however, as independent legislation.

During 1946 Congress enacted the so-called Anti-Petrillo Act, prohibiting certain practices in the broadcasting industry. The Act makes unlawful the use of force, violence, intimidation, duress or the threat of any other means to coerce, compel, or restrain (A) any radio licensee to (1) employ or agree to employ any person or persons in excess of the number of employees needed by such licensee to perform actual services, (2) to pay more than once for services performed or for services which are not to be performed, (3) refrain from broadcasting non-compensatory, non-commercial, education or cultural programs, or programs of foreign origin, or (B) (1) a licensee or any other person to pay tribute for using recordings, transcriptions, reproductions or any other materials used for broadcasting, or (2) to place restrictions on the manufacture and use of recordings and transcriptions for the purpose of preventing or limiting such materials for broadcasting. Violation of the provisions of the bill would result in criminal penalties. In *United States* v. *Petrillo* the United States District Court for the Northern District of Illinois held this statute unconstitutional.

In February 1946 Congress adopted the Employment Act of 1946. The Act established a declaration of policy to the effect that it is the responsibility of the Federal government to promote with the aid of industry, agriculture, labor and state and local governments, maximum employment, production and purchasing power. The President has the duty to formulate programs to carry out the purposes of the law. Provision was also made for the establishment of a three-man Council of Economic Advisers which is to assist and advise the President in the preparation of an Economic Report which is required to be transmitted to the Congress within sixty days after the beginning of each regular session. The Economic Report is to contain information on levels of employment, production and purchasing power obtaining in the United States, current and foreseeable trends in the levels of employment, production and purchasing power, a review of the economic program of the government and of the economic conditions affecting the government during the preceding year and a program for carrying out the declaration of policy, together with such recommendations for legislation as the President may deem necessary.

Proposed amendments to the Fair Labor Standards Act, raising the legal minimum wage from 40 to 65¢ an hour passed the Senate and a similar bill was favorably reported by the House Labor Committee but never reached a vote because of the failure of the House Rules Committee to grant a rule for its consideration. In *D. A. Schulte, Inc.* v. *Gangi*, the Supreme Court held that a good faith compromise settlement of a dispute over the coverage of the Fair Labor Standards Act is not a bar to a suit for liquidated damages. In *Anderson* v. *Mt. Clemens Pottery Co.*, the Court held that time spent by employees in walking to work on the employer's premises following the punching of time clocks was working time since such time was under the complete control of the employer and depended solely on the physical arrangements which the employer made in the factory. The Court also stated that preliminary activities after arrival at the place of work, such as the changing of clothes, the turning on of switches for lights and machinery and the like, constituted working time except where such activities were insubstantial and insignificant.

A rider to the Labor Federal-Security Appropriations Act, 1947, prohibited the National Labor Relations Board from using funds in cases involving employees engaged in agricultural labor, and stipulated that the definition of agricultural labor contained in the Fair Labor Standards Act should be used as the basis for determining the scope of the limitation imposed.

Veterans' re-employment rights were clarified by the Supreme Court in *Fishgold* v. *Sullivan Dry Dock and Repair Corp.* The Court rejected the so-called superseniority doctrine and held that the guarantee contained in the Act against discharge without cause within one year after a veteran's restoration to his peacetime job, does not protect the veteran against "lay-off" in accordance with the seniority system established by the union agreement in effect at the time of his induction.

Legislation to establish a Fair Employment Practice Commission was debated on the Senate floor but was withdrawn after a filibuster by opponents of the proposal. No further action was taken by the Congress prior to adjournment. Massachusetts, however, adopted an anti-discrimination law.

Referenda making closed shop contracts illegal were adopted in Nebraska, South Dakota and Arizona.

WILLIAM M. LEISERSON.

LABOR STANDARDS, Division of. A Division of the U.S. Department of Labor, organized in 1934, authorized to develop desirable labor standards and to make specific recommendations to improve working conditions and the economic position of wage earners. Director in 1946: Verne A. Zimmer.

LABOR STATISTICS, Bureau of. A Bureau of the U.S. Department of Labor, established in 1913, charged with the duty of acquiring and diffusing information on subjects connected with labor. Information is issued in special bulletins and in the *Monthly Labor Review*. Commissioner: Ewan Clague.

LACROSSE. The return of a number of college and club teams to competition made for an interesting season in the Indian game. Navy, which shared the championship with Army in 1945, won the United States Intercollegiate Lacrosse Association crown outright, and placed three of its stars, Captain Ed Hanson, Lee Chambers and Jim Carrington on the All-America ten. The campaign, marked by a speeding up in offensive play, reached a fitting cli-

max on June 7, 1946 when the North and South All-Stars battled to a 14–14 tie after two extra periods at Baltimore.

Outstanding among the club teams was the Mount Washington L.C. Philadelphia carried off laurels in the women's national tournament, defeating Boston, Baltimore, New York and Westchester in a two-day tourney at Smith College.

THOMAS V. HANEY.

LAND MANAGEMENT, Bureau of. An office established on July 16, 1946, through the consolidation of the General Land Office and the Grazing Service, in accordance with the provisions of the President's Reorganization Plan III of 1946.

The scope of the Bureau includes: the survey, management, and disposition of the public lands and the resources therein; the administration of grazing on 153,000,000 acres of Federal range in ten western States; the maintenance of the only official cadastral engineering service; the adjudication of all claims to public lands; the issuance of land patents; the maintenance of 25 district land offices in the western part of the United States and Alaska and the responsibility for the care, handling, and final disposition of grazing and mineral lands in the continental United States under the Federal war-surplus disposal program. Director: Fred. W. Johnson (acting).

LAND UTILIZATION, Office of. An office of the U.S. Department of the Interior, created in 1940, which coordinates and integrates the land use and management activities of the Department. Assistant to the Secretary in charge of Land Utilization: Lee Muck.

LATIN AMERICAN ART. Contemporary art in Latin America has grown and progressively consolidated its standing in the years since the beginning of the second world war. Since 1939, most of the countries to the south have witnessed a revival of artistic activity and have cultivated the new art forms with greater interest. Thus there has been a trend toward complete liberation from the familiar patterns of the academies of the eighties which for so many years dominated Latin American art. Increasing attention has been given to the search for their own national artistic values at home and to the exchange of exhibitions and artists between countries.

First let us mention the 1946 international exhibitions of works of Latin American artists. Secondly we shall cite the exhibitions of interest held in the artists' own countries.

An event of special importance was the participation of many Latin American countries in the International Exhibition of Modern Art organized by the UNESCO in Paris, on view during November and December. *Argentina* presented works by Norah Borges, Héctor Basaldúa, Horacio Butler, Jorge Larco, Juan C. Castagnino, Emilio Centurión, Juan del Prete, Raúl Soldi and others. *Bolivia* was represented by Guzmán de Rojas. Among the many modern *Brazilian* painters included were Ibere Camargo, Jose Cardoso, Cicero Dias, Emiliano di Cavalcanti, Djanira, Tarcila, Percy Lau, Portinari and Lazar Segall. *Chile* offered works of Héctor Banderas, Marcos Bontá, Pablo Burchard, Héctor Cáceres, Camilo Mori, José Perotti and others. *Ecuador's* most youthful artists took part, among them Oswaldo Guayasamín, Eduardo Kingman, Bolivar Mena, Diógenes Paredes and Leonardo Tejada. José Sabogal, Julia Codesido and Mario Urteaga represented *Peru*. *Haiti* sent a collection selected by *Le Centre d'Art*, including works of Louis Agenon, Leon Agnant, Maurice Borno, Hector Hyppolite, Antonio Joseph, Albert Mangones, Philome Obin, Geo Remponeau and Joseph Vincent. *Uruguay* displayed works of her well-known painters, Pedro Figari, Rafael Barradas, Joaquín Torres-García, José Cúneo and Amalia Nieto. *Venezuela* completed the Latin American group with works by J. B. Fabbiani, Héctor Poleo and Pedro León Castro.

The Ecuadorian painters Oswaldo Guayasamín, César Valencia and Alfredo Palacio, who took a group of their works to Peru in 1945, gave Argentina and Chile a chance to see their canvases, holding shows at the *Galería Peuser* in Buenos Aires in January, 1946 and in the salon of Santiago's *Banco de Chile* later in the year. Camilo Egas and Eduardo Kingman, also of Ecuador, were seen in one-man shows in the United States at the *Acquavella Galleries*, New York, and the *San Francisco Museum*, respectively.

Brazil's well known mural painter Candido Portinari exhibited during the summer at the *Gallerie Charpentier* in Paris. His countrymen di Cavalcanti and Noemia were seen in May at the *Hugo Gallery* in New York while Djanira was holding a one-man show at the *New School* and Vieira da Silva's works were on view at the *Willard Gallery*.

Among the Guatemalan artists exhibiting at the *Inter-American University* in Panama in February, 1946, were Humberto Garavito, Rodolfo Gálvez Suárez, Aguilar Chacón, Arimany and Tejeda, representing the academic tradition, and Carlos Mérida, Valentín Abascal, Mario Alvarado and Miguel Alzamora, on the modern side.

A comprehensive collection of Mexican painting ranging from the nineteenth century masters Velasco and Posada to such contemporary figures as Orozco, Rivera, Siqueiros and Tamayo went to Havana in May along with the Exposition of Mexican Books and a delegation of writers and musicians.

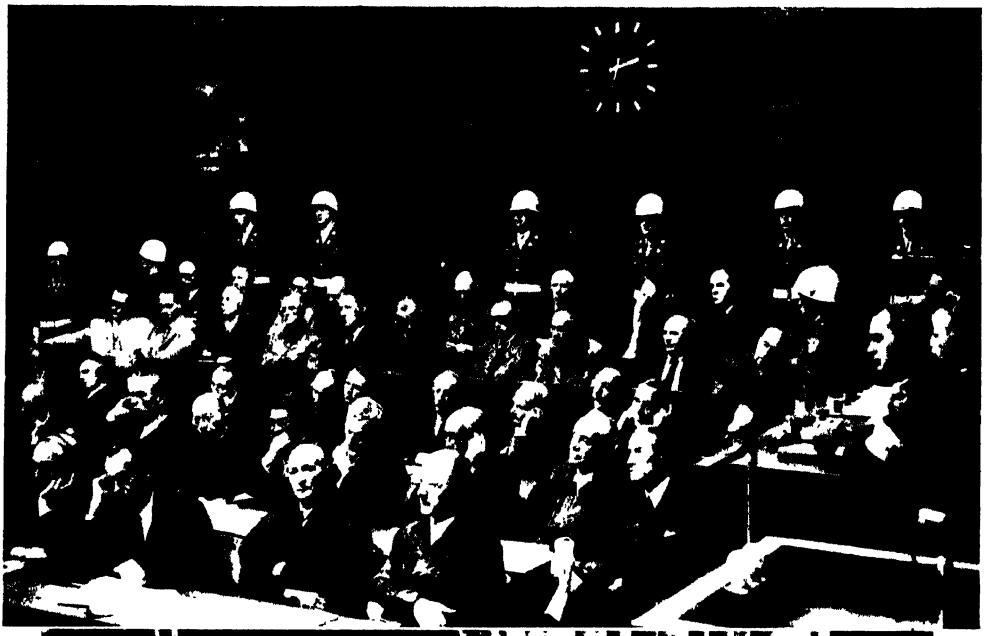
The art of Haiti has at last won attention outside of the island republic. Her "primitive" painters were the first to be shown abroad. Their fresh and ingenuous pictures were displayed at the *Whyte Book Shop and Gallery* in Washington, D.C., in April and at the *American-British Art Center* in New York in June.

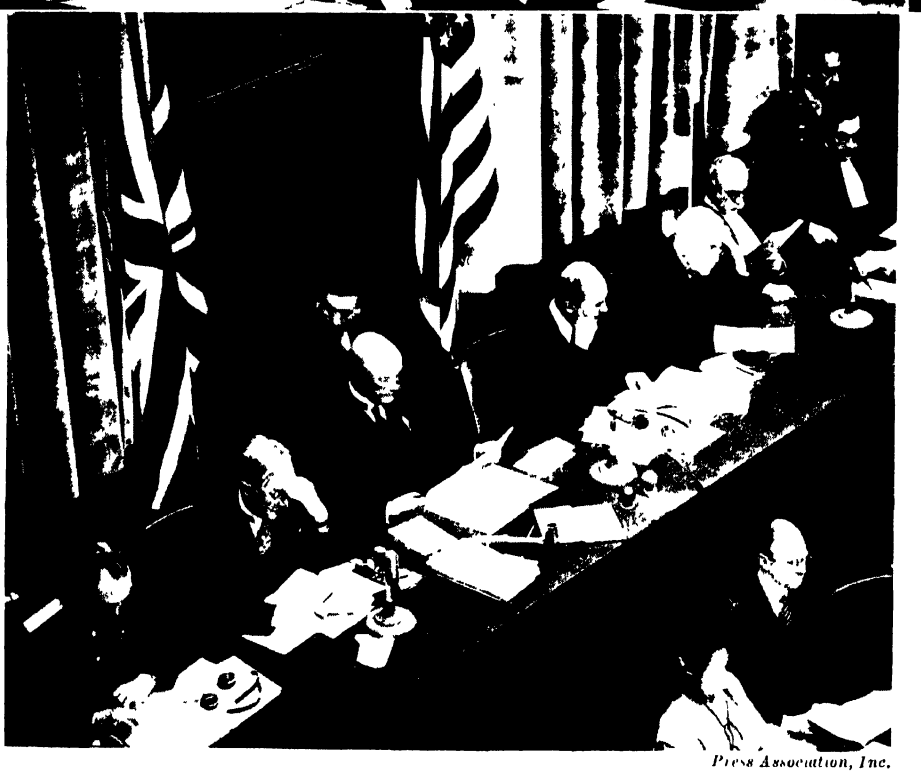
The American public had its first chance to see a large and representative collection of the work of the distinguished Uruguayan painter Pedro Figari (1861–1938) during the year The show was inaugurated in April at the *Knoedler Art Galleries* in New York. The gallery and the *Council for Inter-American Cooperation* undertook to circulate the exhibit throughout the United States during 1946 and 1947 It was displayed at the *San Francisco Museum* in July and at the *Pan American Union* in Washington, D.C., in September. It represents the work of one of the most important pioneers of the new art in Uruguay.

Viña del Mar, attractive Chilean resort near Valparaíso, saw a large exhibition of Peruvian art during its celebration of Peruvian Week. The collection, arranged by the Lima Provincial Council, included anonymous colonial paintings, important works of the nineteenth century and an ample selection of contemporary works of such painters as Juan Barreto, Camilo Blas, Enrique Camino Brent, Alex Ciurlizza, Julia Codesido, Cristina Gálvez, Servulo Gutiérrez, Carlos Quispez Asín, José Sabogal, and Mario Urteaga. In return, a group of contemporary Chilean artists exhibited in the *Galería de Bellas Artes* of Lima in November.

THE NETHERLANDS EAST INDIES

Above: Dr. Louis J. M. Beel, Premier and Minister of the Interior of the new Netherlands Cabinet formed on July 3, 1946. *Inset*: Soekarno, leader of the Indonesian fight for independence. *Below*: Settling the Indonesian question: (left to right) Sjarifudin, Dr. Roem, Feike de Boer, Sutan Siahrir, Professor Schermerhorn, Dr. Van Mook, and M. van Poll. (*Official Netherlands Photo*)





Press Association, Inc.

THE VERDICT IS "GUILTY"

Above: A tense moment in the courtroom at Nuremberg, Germany, as the verdict is read on September 30. In the prisoners' box (left to right, front row) are· Hermann Goering; Rudolph Hess; Joachim von Ribbentrop; Wilhelm Keitel; Ernst Kaltenbrunner; Alfred Rosenberg; Hans Frank; Wilhelm Frick; Julius Streicher; and Walther Funk; (left to right, rear row): Admiral Karl Doenitz; Admiral Erich Raeder; Baldur von Shirach; Fritz Sauckel; Col. Gen. Alfred Jodl; Franz von Papen; Arthur Seyss-Inquart; Albert Speer; and (far right, behind glass) Hans Fritzsche. Both Hjalmar Schacht (front row, right) and Constantine von Neurath (rear row, right) are hidden behind the U.S. Military Police guard at right. *Below:* Members of the International Military Tribunal listen to proceedings. (Left to right) Judge I. T. Nikitchenko of U S.S.R.; Alternate Sir Norman Birkett and Judge Sir Geoffrey Lawrence of Great Britain, Judge Francis Biddle and Alternate John Parker of the United States of America; and Judge Henri DeVabre and Alternate Robert Falco of the Republic of France.

PALESTINE PROBLEM GROWS MORE ACUTE

Above: Illegal Jewish immigrants march into the Athlit Detention Camp, Haifa, Palestine, carrying refugee ship's flag, as interned refugees wave welcome (*Press Association, Inc.*). *Below:* A Jew resists arrest as he is being tackled by three armed British soldiers, while his friend, in background, is also being held (*European*).

LATIN AMERICAN POLITICS

Above: Revolutionists in La Paz, Bolivia, take cover during the successful coup that resulted in the death of President Gualberto Villarroel on July 21, 1946. *Below* Miguel Alemán, Mexico's first civilian President since 1911, reads the oath of office as retiring President Manuel Avila Camacho stands on his left. (*Photos by Acme*)

Acme

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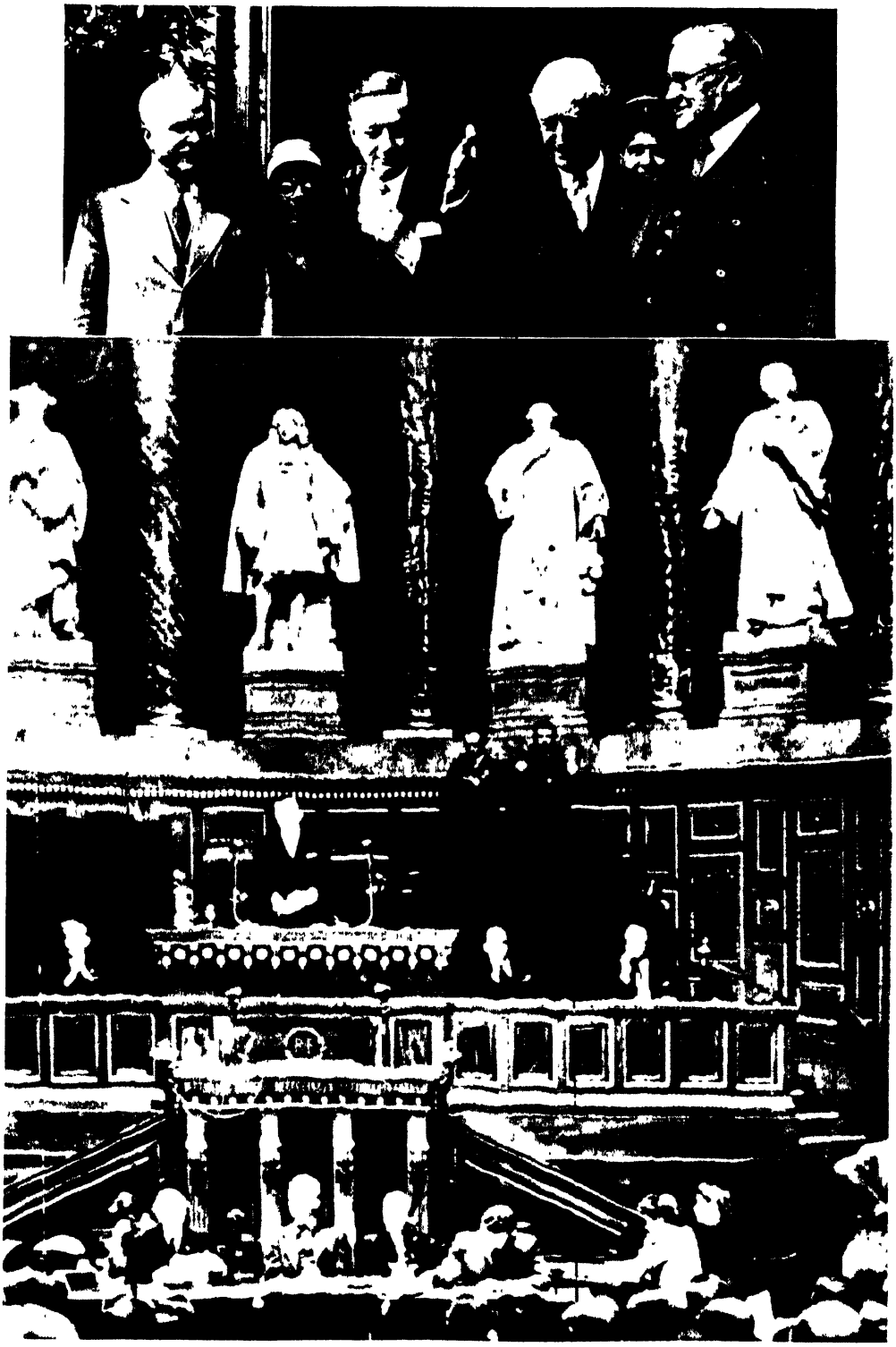
ARGENTINE ELECTION

Above: **Soldiers guard the voting polls during the presidential election in Buenos Aires on February 24, 1946, that gives a decisive victory to Colonel Juan D. Perón.** ***Right:*** **Perón (standing in doorway at right) departs on a campaign tour of the Argentine provinces.**



THE PARIS PEACE CONFERENCE

Above: Gathering for lunch at the French Ministry of War are, left to right, Viacheslav M. Molotov, Georges Bidault, James F. Byrnes, and Ernest Bevin (*European*). *Below:* Bidault welcomes the 1,500 delegates of the twenty-one Allied nations that assembled for the Peace Conference at the Luxembourg Palace, Paris, on July 29, 1946 (*Press Association, Inc.*).

PEACE

Above: The Big Four Foreign Ministers with their advisers gather in the Hotel Waldorf-Astoria, New York, for the first session of the Peace Conference on European peace treaties, November 4, 1946 (*Acme*). *Below*: The United States delegation at the Paris Peace Conference: (left to right) James F. Byrnes, Secretary of State; Jefferson Caffery, Ambassador to France; William Clayton, Assistant Secretary of State; Ben Cohen, Special Assistant to the Secretary of State; W. B. Smith, Ambassador to the Soviet Union; Averell Harriman, the (then) Ambassador to Great Britain, and James Dunn, Ambassador to Italy (*Press Association, Inc.*).

Modern Cuban painting has been widely shown in other countries in recent years. July 1946 marked the end of the extensive tour of Cuban art organized by the *Museum of Modern Art* of New York City which included showings of the collection at many museums and galleries throughout the United States during a period of two years. The *Palacio de Bellas Artes* of Mexico City held an exhibit of Cuban art in June and a collection of works of eleven Cuban painters was seen at the *Museo Provincial de Bellas Artes* of La Plata, Argentina in July and at the *Dirección General de Cultura* in Buenos Aires in August. A group of modern Cuban paintings from collections in Washington, D.C., was displayed in December at the *Pan American Union.*

Artistic activities and progress within each country have been more vigorous and fruitful than ever before. It is not possible to list all the exhibitions held throughout the continent here. We must confine ourselves to pointing out some of the most important ones.

Argentina has continued her outstanding efforts in the field of fine arts publications which have given her the first rank as a producer of art books in the Spanish language. A great and ever-changing number of group and one-man shows is constantly being held in Argentina. The thirty-sixth National Salon was held in September and awarded top honors in painting to Ramón Gómez-Cornet and in sculpture to Luis Rovatti

In Santiago, Chile, the *Instituto Chileno-Británico de Cultura* was the site of the Second Exhibition of Contemporary Chilean Painters. The catalogue listed works of Marcos Bontá, Pablo Burchard, Ramón de Zubiaurre, Olga Eastman, Héctor Cáceres, Carlos Ossandón and others. The *University of Chile,* in the same capital, sponsored an exhibition devoted to the so-called "generation of 1913," including paintings by Judith Alpi, Enrique Bertrix, Pedro Luna, and Carlos Isamitt.

Le Centre d'Art of Port-au-Prince, Haiti, celebrated its second anniversary in April with an exhibition of Luce Turnier, Maurice Borno and Raoul Dupoux. One of the members of the center, Geo Remponeau, won first prize in the Pan American Airways contest for decorating the airport at Port-au-Prince. This vigorous young institution continues to promote art in Haiti by constant exhibitions of national and foreign arts and now publishes a bulletin of Haitian art activities entitled *Studio No. 3.*

Cuba's modern painting shows a continuing upward trend in quality and strength. The *Lyceum* in Havana is the focus of activity of the new artists in Cuba and the scene of most of their group and one-man shows. After several years without any government sponsored exhibits the Third National Exhibition was held at the National Capitol in March, 1946. Prizes were awarded to Carlos Enríquez and Teodoro Ramos Blanco. At the same time, in the hall of the *Asociación de Reporters* of Havana there was an unusual display of paintings by inmates of the Mazorra Hospital for the Insane. This showed the results of the first time that plastic arts had been used in Cuba as a therapeutic aid for the mentally ill. This interesting experiment was directed by the psychiatrist Dr. Manuel de Armas Pacheco, himself a painter.

In the Dominican Republic the Biennial Exhibition of Fine Arts was opened in April. First prizes were awarded to the painter Darío Suro and the sculptor Manolo Pascual. The *Galería Nacional de Bellas Artes* in Ciudad Trujillo held one-man shows during the year of the artists Ernesto Scott, L. J. Alvarez del Monte and Darío Suro. From time to time the Cultural Relations Bureau of the government organized traveling exhibitions to be shown in cities and towns of the interior.

At the *Palacio de Bellas Artes* in Mexico City an extensive and revealing exhibition of Pre-Columbian Art of Western Mexico was held early in the year. A remarkable group of pieces borrowed from various museums and many private collections in the country were shown. Another show at the *Palacio* was the Exhibition of Plastic Arts organized by the Ministry of Education in August, in which 450 artists displayed 495 works of painting, sculpture, drawing, engraving, and architecture. The nation's highest cultural award, the *Gran Premio Nacional* went to the well known artist José Clemente Orozco for his painting and his extensive mural work carried on since the early 1920's. The first prize in sculpture was awarded to Luis O. Monasterio and Leopoldo Méndez took top honors in engraving. The *Society of Modern Art* in Mexico City continued its series of important and well planned exhibitions with one in December entitled "Mexico Seen by Her Painters," including a variety of landscapes and scenes of town and country of the 18th to 20th centuries.

In Caracas, Venezuela, the Seventh Annual Salon of Venezuelan Art opened at the *Museo de Bellas Artes* in March. Rafael Ramón González took the first prize in painting and Fernando Valero that in sculpture. The well known painter Héctor Poleo held a one-man show at the *Museo Nacional* in Caracas in the spring, and all the works shown were sold at the opening. Another successful individual exhibition was held in the same place by the progressive painter Pedro León Castro.

An exhibition of Peruvian popular arts was held at the *Museo de Cultura* in Lima in November. Contemporary handicrafts from all parts of the country were displayed, including textiles, pottery, and the unusual *mates burilados* (carved and painted gourds).

Quito, Ecuador, witnessed the Second National Salon of Fine Arts in May. The first prizes went to the painter José E. Guerrero and César Bravomalo, sculptor.

Finally, to turn to Guatemala, we note that a very important step for contemporary art in that country has been taken with the formation of the *AGEAR* (Association of Revolutionary Guatemalan Writers and Artists). This organization is devoted to the vinculation of cultural activities with the working class. In November it offered, at the headquarters of the Guatemalan Workers' Confederation in Guatemala City, a large show of contemporary art, with works of Valentín Abascal, Mario Alvarado, Miguel Alzamora, and Rodolfo Galeotti Torres. Galeotti Torres also held an individual exhibition of sculpture in October and, together with Alvarado, he has edited an illustrated *Index of Guatemalan Painting and Sculpture,* in Spanish and English, which is the first comprehensive publication in the field to date.

JOSÉ GÓMEZ SICRE.

LATIN AMERICAN LITERATURE. The year 1946 was saddened by the deaths of three great literary figures, Antonio Caso of Mexico, Pedro Henríquez Ureña of the Dominican Republic, and Alcides Arguedas of Bolivia. Caso devoted his life to the study and teaching of philosophy. A dynamic and brilliant lecturer, he opposed the positivism of Porfirio Diaz's *científicos,* and he became one of the greatest influences on Mexican philosophical thinking in this century.

Pedro Henríquez Ureña, though born in Santo Domingo, spent most of his adult life abroad, principally in Mexico and Argentina. He was one of the founders of the Mexican Ateneo and, as teacher and editor, became one of the leading figures in Mexican intellectual life. In 1924 he went to Argentina, where he became Director of the Instituto de Filología de Buenos Aires, a position which he occupied until his death. His life combined to the highest degree the talents of writer and teacher. As a philologist, he ranks with Bello and Cuervo, and his studies of Spanish versification are landmarks in their field. He made notable contributions to the study of American Spanish and to literary and historical criticism. As a tireless and inspiring teacher and guide to two generations of writers and intellectuals, his death is mourned throughout Spanish America.

Alcides Arguedas was Bolivia's greatest novelist. A journalist, sociologist, historian and diplomat, he made himself the most outspoken champion of the Indian with his *Wuatu-Wuaru*, 1904, *Pueblo enfermo*, 1909, *Vida criolla*, 1912, and his most celebrated work, *Raza de bronce*, 1919.

Five English translations and one original work about Latin America are worthy of special mention. Gilberto Freyre's *Casa grande e senzala*, translated by Samuel Putnam with the English title, *The Masters and the Slaves*, is a searching analysis of Brazilian society, and one of the most important sociological studies in Latin America. *The Rest Is Silence*, by the young Brazilian novelist, Erico Verissimo, is a psychological work of the first importance, describing the effect of a young girl's death on each of a number of witnesses. *The House of Mist* is a translation of *La última niebla* by the talented young Chilean, María Luisa Bombal, whose impressionistic and highly stylized novels have won her a continental fame. In *Secret Country*, Muna Lee translates thirty poems of the Ecuadorian poet, Jorge Carrera Andrade. Here is a great poet translated with perfect understanding and with a poetic skill that matches that of the original. *Caribbean Sea of the World*, a translation of *Biografía del Caribe* by the Colombian scholar and critic, Germán Arciniegas, is a brilliant recreation of four centuries of Caribbean history. And in *The Epic of Latin America*, Professor John Crow gives us a broad and imaginative introduction to Latin-American history and civilization.

Argentina. Among the outstanding books of poetry are Mario Luis Descotte's *La vida entre los dedos;* Olga Orozco's *Desde lejos;* Miguel Etchebarne's *Lejanía*, awarded the Buenos Aires Municipal Prize; César Rosales' *Después del olvido;* and *Espacios métricos*, a new volume by Silvina Ocampo, one of Latin America's finest poets.

In prose non-fiction, there are Héctor Agosti's *José Ingenieros*, a biography of the great philosopher and publicist; Vicente Barbieri's provincial memoirs, *El río distante; Ibsen y su tiempo*, by the gifted critic, Enrique Anderson Imbert; Leónidas Barletta's poetic narrative of sea life, *El barco en la botella;* León Dujovne's *Psicología y filosofía de la persona;* Ricardo Piccirilli's biography of Rivadavia, Argentina's first President; Luis Franco's *El otro Rosas*, a new slant on the nineteenth-century tyrant; Pablo Rojas Paz's life of the statesman, Alberdi; *Testimonios, Tercera serie*, critical and biographical sketches by Victoria Ocampo, publisher of Sur and one of the most remarkable cultural forces in South America.

In fiction, there are five notable novels: Alejandro Magrasi's *La Caá Yarí;* Juan Goyanarte's *Lago argentino;* Max Dickmann's *Esta generación perdida;* and Roger Plá's *Los Robinsones.* Alberto Menasché's *Historia de gatos y otros cuentos* are sly and witty tales of animal foibles. Enrique Anderson Imbert has collected fantastic tales and essays in *Las pruebas del caos.* Also worthy of note are Carmelo Bonet's *Apuntaciones sobre el arte de juzgar;* Gerardo Pisarello's *Che rhetá*, Diego Newbery's *La vida es secreta*, Fausto Burgos' *El salar*, Carlos Ernesto Deheza's *Manuel D. Pizarro*, Nalé Roxlo's *El pacto de Cristina* and *El cuervo del arca*, imaginative and poetic plays.

Bolivia. The late Ignacio Prudencio Bustillo was a brilliant essayist and stylist. *Páginas dispersas* is a collection from his work, made by Bolivia's leading critic, Carlos Medinaceli. Raúl Botelho Gosálvez's *Altiplano*, a novel of Indian life, was the Bolivian entry in the first Latin-American Prize Novel contest. *El cristo viviente* is a meditation on the words of Jesus by the celebrated novelist and historian, Augusto Guzmán. *Metal del diablo* is a powerful novel about a tin magnate, by Augusto Céspedes. José Federico Delos' *De pie*, a volume of political satire in verse, published clandestinely under the Villaroel dictatorship, is credited with no small part in bringing this dictatorship to an end.

Brazil. Excellent guides to Brazilian philosophy and culture are Cruz Costa's *A filosofia no Brasil*, Theodoro Ribeiro Junior's *Origens da literatura* and Fernando Azevedo's *Cultura brasileira. Novos estudos afro-brasileiros* is by the noted ethnographer, Gilberto Freyre. Of first importance is the biography of Luiz Carlos Prestes, the Communist leader, by Jorge Amado Octavio Tarquino de Sousa's *José Bonifacio, Emancipador del Brasil*, is a definitive biography of the statesman, naturalist, and teacher who helped to create the Brazilian Empire in 1822.

Two collections of short stories that reveal promising talents are Bruno Accioly's *João Urso* and De Sousa Junior's *Castilo dos fantasmas.* There are four noteworthy novels: Amadeu de Queiroz's grimly realistic *João;* Manoelito de Ornella's *Tiarajú*, the prose epic of a legendary patriot of Rio Grande do Sul; José Geraldo Vieira's *A mulher que fugiu de Sodoma*, a reprint of an outstanding realistic novel; and Maria Luiza Cordeiro's *Um olhar para a vida*, a prize-winning first novel of great psychological subtlety.

Anthologies of three of Brazil's major poets have been edited this year: *Obras completas de Castro Alves, Obras poéticas de Gonçalves Días*, and *Obras Completas de Tomás Antonio Gonzaga.* Among new poetic works are Aurora Nunes Wagner's *Preludios* and Gastão Justa's *Quando as rosas florecem.* Povina Cavalcanti's *Ausencia da poesia* is an enquiry into contemporary poetic values.

Chile. The Premio Nacional de Literatura, awarded last year to the poet, Pablo Neruda, was given this year to the novelist, Eduardo Barrios, whose early psychological novels, *El niño que enloqueció de amor*, 1915, *Un perdido*, 1917, *El hermano asno*, 1922, place him among the greatest stylists and most subtle writers of America. The Premio Atenea was awarded to Marta Villanueva de Bulnes (Luz de Viana) for her first novel, *No sirve la luna blanca.* The Concurso literario de Santiago gave its poetry prize to Jerónimo Lagos Lisboa's *La pequeña lumbre*, and its fiction prize to Jacobo Danke's *La taberna del perro que llora*, a volume of eight fantastic tales.

Among other notable books of poetry are Pedro Prado's *No más que una rosa*, Mila Oyarzún's *Estancias de soledad*, Juan Negro's *Vasto ser*, and the authorized *Antología* of the poetry of Gabriela Mistral, published by Zig-Zag.

Marta Brunet's *Humo hacia el sur* is a grimly realistic novel of life in a town in southern Chile. Two excellent volumes of short stories are Gonzalo Drago's *Una casa junto al río* and *Cristián y yo*, a selection from the works of Augusto D'Halmar, one of the great writers of Chilean fiction.

Colombia. Julio Flórez's *Poesías* is a selection from the poems of a gifted and beloved poet who died in 1923. In *Estudios hispanoamericanos*, Carlos García Prada, distinguished Colombian critic and Professor in the University of Washington, has gathered critical studies of poets and prose writers. Germán Arciniegas, in *Este pueblo de América*, has written an imaginative and illuminating account of the role of the common man in Spanish-American history.

Cuba. The Cuadernos de Cultura has published *Poesías completas* of Julián del Casal (1863–1893), the great Cuban precursor of modernism. *Trincheras de papel* is a reprint of newspaper articles by José Martí, whose literary fame is over-shadowed only by his grandeur as patriot and martyr. César Rodríguez Expósito's *Entre libros* contains a selection of the author's book reviews. Alejo Carpentier's *La música en Cuba* is a welcome addition to our scanty information about Cuban and Latin-American music.

Dominican Republic. *Panorama histórico de la literatura dominicana* is an authoritative work by Max Henríquez Ureña, brother of the late Pedro Henríquez Ureña.

Ecuador. Neptalí Zúñiga's *Atahualpa o la tragedia de Amerindia* is a profoundly moving biography of the last Inca and of his people.

Guatemala. There are three noteworthy volumes by young poets: Roberto Girón Lemus' *Orígenes*, Miguel Angel Vázquez's *Relieves en el sueño*, and Enrique Juárez Toledo's *Pueblo y poesía*. Manuel Galich's *El canciller Cadejo: Teatro grotesco* is a satiric farce directed against the recent Guatemalan dictatorship.

Honduras. Rafael Heliodoro Valle, the distinguished poet and bibliographer, has published *Santiago en América*, a beautifully written account of the influence of St. James, the patron Saint of Spain, upon the geographical nomenclature of Spanish America.

Mexico. The Premio Lanz Duret, for the outstanding novel of the year, was awarded to Gustavo Rueda Medina's *Las islas también son nuestras*, a gently ironic story of tedium and love on a tropic isle. In 1945 this award went to Jesús Goytortúa's *Pensativa*, and this year Sr. Goytortúa was again honored when his *Lluvia roja* won the novel award of the Premio Ciudad de México. The non-fiction award went to *Nueva grandeza mexicana*, in which the poet Salvador Novo unfolds the glories and excitements of the capital city to a visitor from Monterrey. The Letras de México prize for El libro del año went to Andrés Iduarte for his *Martí, escritor*, a work of brilliant and searching scholarship that analyzes the writings of Cuba's Apostle of Liberty.

Among the notable volumes of poetry are Alfonso Reyes' *Romances (y afines)*, an added proof of the versatility of Mexico's foremost scholar and critic; Margarita Paz Paredes' *Voz de la tierra; Segundo despertar y otros poemas*, a new volume by Enrique González Martínez, Mexico's greatest living poet; *Cuando zarpe el barco*, a long prose poem on the lure of the sea by a talented young poet, Wilberto Cantón; and three excellent anthologies, Francisco González Guerrero's *Sonetos mexicanos*, González Ramírez and Torres Ortega's *Poetas de México. Antología de la poesía contemporánea mexicana*, and *Sonrisa del alba*, poems by younger poets, chosen from the poetry magazines.

Francisco Monterde's *Moctezuma, el de la silla de oro* is a beautifully drawn portrait of the great Aztec Emperor. Antonio Magaña Esquivel has written a definitive biography of a leader of Mexican Independence in *Guerrero, el héroe del Sur*. In *Herejías y supersticiones de la Nueva España*, Julio Jiménez Rueda makes an acute and stimulating study of the heterodoxies of colonial times. *Cuaresmas del Duque Job y otros artículos* is an edition of the prose of Manuel Gutiérrez Nájera. Of prime importance, literary as well as artistic, is the *Autobiografía* of José Clemente Orozco. Two collections of essays by Alfonso Reyes, *Simpatías y deferencias* and *Capítulos de literatura española (2a serie)* reflect the breadth of interests of one of the foremost scholars of the century.

Two of Mexico's most famous novelists have published books this year. Mariano Azuela's *La mujer domada* is the story of an ambitious woman's attempt to win literary fame; José Rubén Romero's *Rosenda* is a love story, simple, poignant, and one of his finest achievements. There are two noteworthy volumes of short stories: Arqueles Vela's *Cuentos del día y de la noche* and Ignacio Medina's *Remanso de historias*. José Mancisidor has made excellent choices in his two anthologies of the short story, *Cuentos mexicanos del siglo XIX* and *Cuentos mexicanos de autores contemporáneos*.

Among published plays of first importance are Agustín Lazo's *Segundo imperio*, about the Empress Carlota; Ermilo Abreu Gómez's *Un loro y tres golondrinas*, a farce with tragic overtones; and Bernardo Ortiz de Montellano's puppet-play, *El sombrerón*.

Nicaragua. Ernesto Mejía Sánchez's *Romances y corridos nicaraguenses* is a comprehensive selection of popular ballads and songs.

Panama. Enrique Ruiz Vernacci's *Introducción al cuento panameño* is an exciting summary of the work of a vigorous new group of short-story writers.

Peru. Alberto Ureta's *Antología poética* is a collection of his poetry from 1911 on. Luis Alberto Sánchez's *¿Existe América Latina?* is a study of problems and responsibilities by an unfailingly stimulating thinker.

Puerto Rico. Pedro Juan Labarthe has harvested a much neglected field of literature in his *Antología de poetas contemporáneos de Puerto Rico*.

El Salvador. *Romances de Norte y Sur* is a collection of poems by Claudia Lars, a poet of first rank in Spanish America. In *Mi América*, Alicia Lardé de Venturino writes a poetic, dreamlike account of American travels.

Uruguay. Three volumes of poetry stand out: Clara Silva's *La caballera oscura*, simple, lyric verse by a new poet; *Acordeón marinero*, a sequence of melodious, imaginative poems of the sea by Gastón Figueira, the outstanding poet, critic, and bibliographer; *Canto de mar*, the best poem of Carlos Rodríguez Pintos, whom Figueira considers the finest contemporary poet of Uruguay.

Daniel Muñoz's *Artículos* evokes the literary atmosphere of Montevideo at the turn of the century. Justino Zavala Muñiz's *Batlle, héroe civil* is a biography of José Batlle Ordóñez, the great democratic leader and president of Uruguay. *Pola Salavarrieta* is a tragedy in verse, about a revolutionary patriot, written by the distinguished poet, Sarah Bollo.

Venezuela. Three excellent volumes of lyric poetry are *Libro de los sonetos* and *Prisión terrena* by Juan Berroes and *Al norte de la sangre* by Ana Enriqueta Teran. In *Este nuevo mundo*, Otto D'Sola

has collected his poems of national and international concern.

Among noteworthy collections of short stories are Ada Pérez Guevara's *Pelusa y otros cuentos,* Francisco Andrade Alvarez's *Claroscuro,* and Andrés Mariño Palacio's *El límite del hastío.*

DONALD D. WALSH.

LATTER-DAY SAINTS, Church of Jesus Christ of. A religious body, commonly known as the Mormon Church, organized in 1830 at Fayette, New York, by Joseph Smith. In 1945 the organization included 158 stakes, 1,215 wards, 118 independent branches, and 38 missions, with a membership of 979,454. Accurate information regarding the missions in Europe, and the Pacific, has not been available for the past three years. However, at the present time there are 2,000 missionaries, 300 in foreign fields. The administrative affairs of the church and the performance of all church ordinances are attended to by the priesthood, consisting of the Melchizedek Priesthood, a senior order with 122,547 male members, and the Aaronic Priesthood, a junior order with 104,987 male members.

The church maintains eight temples which are devoted to sacred ordinances for the living and the dead, such as baptisms, endowments, and marriages. It also maintains the Brigham Young University, Ricks Junior College, Latter-day Saints Business College, Juarez Academy in Mexico, and 12 collegiate institutes. The auxiliary bodies include the Women's Relief Society, numbering, in 1945, 102,610 members who care for the sick and the needy. The Sunday Schools, in 1945, had an enrollment of 360,332. The two Mutual Improvement Associations, composed of young people, had an enrollment of 117,805. The Primary Association for those under 12 had 127,960.

The Church holds, in Salt Lake City, Utah, two general conferences each year, one during the first week in April, and the other the first week in October, at which the work of the general authorities is reviewed. The general authorities, as sustained at the 1945 October general conference were: First Presidency: George Albert Smith, President; J. Reuben Clark, First Counselor; David O. McKay, Second Counselor. Quorum of the Twelve Apostles: George F. Richards, President.

LAW. This review is limited to important developments during the year, 1946, in judicial decisions, legal procedure, and jurisprudence. For discussion of legislation and similar topics, the special title involved should be consulted.

War and International Law Decisions. Two trials dramatically highlighted the evolving conceptions of the nature of war: the Nuremberg War Criminals Trial of the Nazi leaders and the American military commission trial of Japanese General Tomoyuki Yamashita. The agreement and charter for setting up the Nuremberg tribunal were executed in London, August 8, 1945 between Great Britain, the United States, France and the Soviet Union; in all, nineteen signatories of the United Nations expressed adherence to the agreement. See (1945) 13 *U.S. Dept. of State Bulletin* 222; *New York Times,* October 1, 1946, p. 12. The formal offenses with which the German military and political leaders were charged at the trial which began November 20, 1945 were: (1) Crimes Against Peace; (2) War Crimes; (3) Crimes Against Humanity; and (4) Conspiracy to commit acts constituting the foregoing crimes. The trial was concluded August 31, 1946; judgment of conviction carrying death and imprisonment sentences for most of the defendants and acquittal for the others was rendered September 30 and October 1, 1946. See *New York Times,* October 1, p. 12; October 2, pp. 22, 23. The basic principle of law, formulated and vindicated at the trial, was that aggressive war is a crime against humanity. For discussion, see Gleuck, *The Nuremberg Trial and Aggressive War,* 59 *Harv. L. Rev.* 396; Robert H. Jackson, *The Case Against the Nazi War Criminals* (1946) (book includes Jackson's Opening Statement for the United States; agreement of the Big Four for prosecution and punishment of the major war criminals of the European Axis; text of the indictment). In the case of General Yamashita the question pertained to the law of war: whether this law imposes on an army commander a duty to control troops under his command for the prevention of atrocities. General Yamashita was the Commanding General of the Fourteenth Army Group of the Imperial Japanese Army in the Philippine Islands between October 9, 1944 and September 2, 1945; on September 3, 1945 he surrendered to the American military. Shortly thereafter on the order of the American commander, General Styer, a military commission was appointed to try General Yamashita on the formal charge that he "unlawfully disregarded and failed to discharge his duty as commander to control the operations of the members of his command, permitting them to commit brutal atrocities and other high crimes against people of the United States and of its allies and dependencies, particularly the Philippines; and he . . . thereby violated the laws of war." Six army officers, all lawyers, were appointed as defense counsel. At the conclusion on December 7, 1945 of a lengthy trial at which the commission heard two hundred and eighty-six witnesses, who gave over three thousand pages of testimony, General Yamashita was found guilty as charged and sentenced to death by hanging. His counsel then applied to the Supreme Court of the Commonwealth of the Philippines for writs of habeas corpus and prohibition. From an order denying the application his counsel petitioned the United States Supreme Court for review on certiorari, and also moved the latter court for leave to file with it an original petition for writs of habeas corpus and prohibition. In denying these petitions the Court, through Chief Justice Stone, overruled the following four contentions: (a) "that no military commission to try petitioner for violations of the law of war could lawfully be convened after the cessation of hostilities between the armed forces of the United States and Japan; (b) that the charge preferred against petitioner fails to charge him with a violation of the law of war; (c) that the commission was without authority and jurisdiction to try and convict petitioner because the order governing the procedure of the commission permitted the admission in evidence of depositions, affidavits and hearsay and opinion evidence, and because the commission's rulings admitting such evidence were in violation of the 25th and 38th Articles of War (10 U.S.C. §§ 1496, 1509) and the Geneva Convention (47 Stat. 2021), and deprived petitioner of a fair trial in violation of the due process clause of the Fifth Amendment; (d) that the commission was without authority and jurisdiction in the premises because of the failure to give advance notice of petitioner's trial to the neutral power [Switzerland] representing the interests of Japan as a belligerent as required by Article 60 of the Geneva Convention." Elaborate dissents were filed by Justices Murphy and Rutledge. Agreeing with the Court that the military commission was

lawfully created and had the power to try petitioner for a recognized war crime, Justice Murphy could not agree that the charge against petitioner stated a recognized violation of the laws of war. And he further contended that a military, just as any other federal trial was subject to the safeguards of the due process clause of the Fifth Amendment: in other words that the authority for the military trial which grows out of the exercise of the power conferred upon Congress by Article I, § 8, Cl. 10 of the Constitution to "define and punish . . . Offenses against the Law of Nations . . ." was limited by the Fifth Amendment. Eloquently he declares: "The immutable rights of the individual, including those secured by the due process clause of the Fifth Amendment, belong not alone to the members of those nations that excel on the battlefield or that subscribe to the democratic ideology. They belong to every person in the world, victor or vanquished, whatever may be his race, color or beliefs. They rise above any status of belligerency or outlawry. They survive any popular passion or frenzy of the moment. No court or legislature or executive, nor even the mightiest army in the world, can ever destroy them. Such is the universal and indestructible nature of the rights which the due process clause of the Fifth Amendment recognizes and protects when life or liberty is threatened by virtue of the authority of the United States." And Justice Rutledge concludes his dissent by quoting the great patriot Tom Paine: "He that would make his own liberty secure must guard even his enemy from oppression; for if he violates this duty he establishes a precedent that will reach himself." *Application of Yamashita*, 327 U.S. 1, noted in 40 Ill *L. Rev.* 546, 37 *J. Crim. L.* 58, 44 *Mich. L. Rev.* 855, 21 *Notre Dame L.* 237. See also *Application of Homma*, 66 S. Ct. 515, ruled by the *Yamashita* case since similar issues were involved relative to the military trial of General Homma, the victorious commander of the Japanese Army in the Philippines from December 12, 1941 to August 5, 1942.

Historic issues of the nature of martial law and the suspension of civil trials were presented in two cases arising in Hawaii. Immediately following the Japanese attack on Pearl Harbor the Governor of Hawaii on December 7, 1941 placed the Territory under martial law and suspended the privilege of the writ of habeas corpus; two days later the President approved this action. On August 20, 1942 the military police arrested one White, a civilian, on the charge of embezzling stock belonging to another civilian; two days later he was brought before a military Provost Court which orally informed him of the charge. He made objection to the tribunal's jurisdiction, a demand to be tried by a jury, and a request for additional time to prepare for trial in that order and all were overruled or denied. On August 25 he was tried, convicted, and sentenced to five years imprisonment; this sentence was later reduced to four years. Duncan, also a civilian, was arrested for engaging in a brawl with two armed Marine sentries on February 24, 1944, charged with assault, convicted and sentenced by the military to six months' imprisonment. Both White and Duncan challenged the power of the military tribunals by petitions for writs of habeas corpus filed in the United States District Court for Hawaii on March 14 and April 14, 1944, respectively. The petitions were granted after trial, on the finding by the district court that the courts had always been able to function but for the military orders closing them and consequently there was no military necessity for the trial of petitioners by military tribunals. The Ninth Circuit reversed on the theory that martial law had been properly proclaimed; that martial law denotes a total military government displacing or subordinating the civil courts; and that the decision of the Executive as to what the public safety requires must be sustained if based on reasonable grounds and that such grounds did exist here. By a divided court our highest tribunal reversed the Ninth Circuit and affirmed the trial court. The majority felt that the allowable limits of military discretion had been exceeded in closing the civil courts to the trial of these petitioners and relied upon such factors as these: testimony of the Governor of Hawaii and the Chief Justice of the Hawaiian Supreme Court that the civil courts were able, apart from the closing military order, to function without endangering good order or the public safety; failure of the military authorities to advance any substantial reasons countering this testimony; and the fact that the military had relaxed many controls over ordinary life at a date earlier than the periods involved in these cases. Illustrating the latter point it was noted that the military allowed places of amusement to be opened December 24, 1941, permitted the courts to exercise their normal functions except as to jury trials and the issuance of writs of habeas corpus on January 27, 1942, and on February 4, 1942, authorized the sale of liquor at bars. Justice Burton, dissenting, was unwilling to substitute his judgment in 1946, after the war had been won, for that of the military made during the dark, foggy days of the war when Hawaii was either an actual battlefield or a strategic area in the theatre of war. And he suggests that the Supreme Court would not have granted habeas corpus to oust the military courts on the dates involved, or if it had been so presumptuous that its orders could not have been enforced. "In order to recognize the full strength of our Constitution, both in time of peace and in time of war," he states, "it is necessary to protect the authority of our legislative and executive officials, as well as that of our courts, in the performance of their respective obligations. . . ." *Duncan v. Kahanamoku*, 327 U.S. 304, noted in 14 *Geo. Wash. L. Rev.* 522.

There has been a similar time lag carrying us past the cessation of the war in working out the scope of judicial review to which civilians were entitled under the Selective Training and Service Act of 1940. In *Falbo v. United States*, 320 U.S. 549, decided in 1944, the Court held that in a criminal prosecution under § 11 of that Act a registrant could not defend on the ground that he was wrongfully classified by his draft board and was entitled to a statutory exemption, where the offense was a failure to report for induction into the armed forces or for work of national importance. Then in *Billings v. Truesdell*, 321 U.S 542, also decided in 1944, the Court held that a selectee, who reported to the military authorities at the induction center as ordered by the local draft board and as required by the *Falbo* case in order to exhaust his administrative remedies, was not amenable to military law if he refused to take the oath of induction. But it was not until 1946 in *Estep v. United States*, 327 U.S. 114, discussed in 44 *Mich. L. Rev.* 874, 32 *Va. L. Rev.* 618, that the Court established what defenses were available to such a person when indicted and tried by the civil authorities under § 11 of the Act for wilfully failing and refusing to take the oath of induction. In the *Estep* case both defendants were Jehovah's Witnesses and each had claimed that by that fact he was a minister of religion and entitled to be classified as IV-D. The lo-

cal boards had denied the claim and classed each of them as I-A; the appeal boards affirmed; in the case of one defendant an appeal to the President was denied, in the other case an appeal to the President was allowed and the classification was again affirmed. Each defendant then reported for induction, was accepted by the military authorities, but each refused to be inducted. In the ensuing criminal prosecution by the civil authorities each defendant was denied the right to prove that he was a minister entitled to exemption. Reversing the convictions and remanding for a new trial the Court stated: "we start with a statute which makes no provision for judicial review of the actions of the local boards or the appeal agencies. . . ." But we "cannot believe that Congress intended that criminal sanctions were to be applied to orders issued by local boards no matter how flagrantly they violated the rules and regulations which define their jurisdiction. We are dealing here with a question of personal liberty. . . . The provision making the decisions of the local boards 'final' means to us that Congress chose not to give administrative action under this Act the customary scope of judicial review which obtains under other statutes. It means that the courts are not to weigh the evidence to determine whether the classification made by the local boards was justified. The decisions of the local boards made in conformity with the regulations are final even though they may be erroneous. The question of jurisdiction of the local board is reached only if there is no basis in fact for the classification which it gave the registrant." The right of the returning veteran, under the Selective Training and Service Act, to his old job has, on the other hand, been settled more expeditiously. In *Fishgold v. Sullivan Drydock & Repair Corp.*, 66 S.Ct. 1105, it was ruled that although a returning veteran "does not step back on the seniority escalator at the point he stepped off" but "steps back on at the precise point he would have occupied had he kept his position continuously during the war," such a veteran may be laid off due to slackening of work and a non-veteran retained on the job whose seniority is greater. "We agree with the Circuit Court of Appeals that by these provisions Congress made the restoration as nearly a complete substitute for the original job as possible. No step-up or gain in priority can be fairly implied."

The United States successfully denaturalized a leader of the German Bund for taking a false oath of allegiance to the United States. The Court adhered to the requirements of the *Baumgartner* case, discussed in the 1945 review, (1) that "when denaturalization is sought . . . the standard of proof required is strict" and (2) that "the state of mind existing when the oath was administered" was the criterion of the necessary intent, but concluded: ". . . there is solid convincing evidence that Knauer before the date of his naturalization, at that time, and subsequent was a thorough-going Nazi and a faithful follower of Adolph Hitler. The conclusion is irresistible, therefore, that when he forswore allegiance to the German Reich he swore falsely." *Knauer v. United States*, 66 S.Ct. 1304. The Court, however, overruled an established line of precedent that an alien who refuses to take an oath of willingness to bear arms in defense of this country is not entitled to citizenship. *Girouard v. United States*, 326 U.S. 714 (reversing the First Circuit for its denial of citizenship to a Canadian Seventh Day Adventist who refused to take the oath for religious reasons), noted in 14 *Geo. Wash. L. Rev.* 641, 4 Nat. B. J. 137. For discussion of the subject dealt with in this subhead, see Fraenkel, *War, Civil Liberties and the Supreme Court 1941 to 1946*, 55 Yale L. J. 715.

Turning to the economic side the decisions, while naturally of a more pedestrian character, have been fairly important. Under the exercise of its war power Congress could constitutionally make the Emergency Price Control Act of 1942 applicable to states and their political subdivisions. Thus the State of Washington was subject to ceiling prices in its sale of timber despite its constitutional provision requiring sale to the highest bidder. *Case v. Bowles*, 327 U.S. 92; and see *Hulbert v. Twin Falls County, Idaho*, 327 U.S. 103 (sales of tractors by county subject to price regulation). Due to the power of a court of equity to mould its decrees to the necessities of the particular case and because of the public interest involved, a federal district court could, in a suit by the Price Administrator, order the landlord to make restitution to tenants of monies collected in excess of the rent ceilings, in addition to its well recognized power to enjoin violations. *Porter v. Warner Holding Co.*, 66 S.Ct. 1086. And it also had the power in a suit by the Administrator to restrain state court eviction proceedings brought by the landlord against a tenant. *Porter v. Dicken*, 66 S.Ct. 1094; *Porter v. Lee*, 66 S.Ct. 1096. A contrasting illiberality of approach is to be found, however, where the enforcement proceeding is of a criminal character. With an over meticulous regard of legal niceties in a criminal trial for violating ceiling prices in the sale of turkeys by requiring the retailer also to purchase chicken gizzards, feet and skin, the Court reversed the conviction of a wholesale meat and poultry dealer. The dissent of Justice Black is realistic. "We were at war in 1943," he points out. "Scarcity of food had become an acute problem throughout the nation. . . . Certainly these particular butchers [the retail purchasers] forced to buy these unwanted items for the first time were not the regular outlet for disjointed chicken feet and peeled chicken skins, if there ever was such an outlet on a voluntary basis. . . . When food is scarce and people are hungry it is a violation, both of the letter and spirit of the Price Control laws, to require consumers or retail stores where they make their purchases, to buy things that they neither need nor want as a condition to obtaining articles which they must have." *M. Kraus & Bros. Inc. v. United States*, 66 S.Ct. 705, noted in 14 *Geo. Wash. L. Rev.* 647. Quite properly decisions construing amendments to the Price Control Act reflect their restrictive nature on federal regulation. Thus under the Act passed in 1942 a protest had to be made to the Administrator within sixty days after promulgation of the regulation, or thereafter within sixty days solely on grounds arising after the initial sixty day period. Under the amendatory Stabilization Act of 1944 it was ruled that Congress had, however, authorized a protest to be filed at any time after the effective date of the regulation. *Utah Junk Co. v. Porter*, 66 S.Ct. 889. *Accord*: *Collins v. Porter*, 66 S.Ct. 893 (petitioners as stockholders of a distilling corporation had, on its dissolution, received as their share of the assets warehouse receipts covering the bulk whiskey owned by the corporation, and in 1943 had sold these receipts above ceiling prices for bulk whiskey; the Administrator's position was that the receipts were not "securities," expressly exempt from pricing provisions, but were subject to price ceilings for bulk whiskey established in 1942; held that petitioners in May, 1945 could file a protest with the Administrator challenging the validity or applicability of his 1942 order). And construing

the Taft Amendment, effective July 16, 1943, the Court ruled that then existing price regulations based on standardization or grouping of commodities by the Administrator became ineffectual until he made a specific finding that no practicable alternative exists for securing effective price control. *Thomas Paper Stock Co. v. Porter*, 66 S.Ct. 884 (Justice Black dissented on the theory that a regulation valid on the effective date of the Amendment and admittedly valid two months later when the Administrator had made the specific finding should not be held invalid in the interim period, since this would leave no price control on commodities, which the Administrator had earlier standardized, during the interval required for him to recheck his regulations). In construing the Renegotiation Act and in applying principles of eminent domain a broad approach was taken. Accordingly it was ruled that where compensation for chartered vessels was to be paid by the United States although the chartering was technically between a steamship corporation and the British Ministry of War Transport instead of the United States, the question of whether the contract is within the Renegotiation Act is first for the Price Adjustment Board with subsequent right of review by the Tax Court. *Macauley v. Waterman S.S. Corporation*, 66 S.Ct. 712. And that where the United States had taken over a municipal airport and had flown its military planes in taking off and landing at such low altitudes as to interfere with the living and commercial use of adjacent property (in this case a chicken farm), there was a taking of an easement by the Government and the owner was entitled to just compensation under the Fifth Amendment. *United States v. Causby*, 66 S.Ct. 1062.

Civil Liberties. Among the decisions relating to the fundamental liberties safeguarded against federal action by the first nine amendments and against state action by the Fourteenth Amendment to the Constitution, the Court early asserted the freedom of the press from oblique censorship by postal authorities. Yet the issue became current again. In 1943 the Postmaster General, instituting a campaign to eliminate the distribution of "quasi-obscene" periodicals, had revoked the second class mailing privilege of the magazine *Esquire*. Although unable to prove *Esquire* obscene he took the position that the classification statute defining second class matter empowered him to prescribe qualitative standards for the literature and art which a mailable periodical must meet. The statute describes a mailable periodical as being ". . . originated and published for the dissemination of information of a public character, or devoted to literature, the sciences, arts, or some special industry . . ." The Postmaster General contended that *Esquire* was indecent, vulgar, and risqué, and was, therefore, "not making the 'special contribution to the public welfare' which Congress intended by the [above definition]." The Supreme Court invalidated his revocation order and held that Congress had given the Postmaster General no power to pass on the quality of the contents of periodicals, and that the inference of such authority would result in censorship. The Postmaster had denied any censorship on the grounds that *Esquire* was not being barred from the mails or prevented from publishing and that, since second class mail is carried at a loss, the government was merely revoking a subsidy which was not a right but a mere privilege. But because of the competition among periodicals no newspaper or magazine could afford to distribute at other than second class rates and, therefore, revocation of second class privileges is functionally equivalent to total censorship. *Hannegan v. Esquire*, 326 U.S. 708; and see 53 *Yale L. J.* 733 (commenting on lower court decision). Freedom of the press was further safeguarded by holding that newspaper cartoons and editorials portraying half truths and commenting derogatorily about a particular Florida court did not constitute a contempt of that court. The vague test of a "clear and present danger to the administration of justice" was reiterated as the only delimiting factor of permissible criticism of the judiciary. *Pennekamp v. Florida*, 326 U.S. 709.

The Supreme Court, however, narrowed further the scope of the immunity against unreasonable search and seizure guaranteed by the Fourth and Fifth Amendment over vigorous dissents by Justices Murphy, Frankfurter and Rutledge. In *Davis v. United States*, 66 S.Ct. 1256, Davis, a filling station operator, was arrested for the misdemeanor of operating a black market in gasoline. Then the government agents, without a warrant, threatened to break and enter his service station office and thus "induced" Davis to unlock the door. There the officers found ration coupons in excess of the gallonage necessary to refill the storage tanks. In the prosecution of Davis on the new charge of illegally possessing ration coupons the seized coupons were admitted in evidence over timely objection. In affirming the conviction the Court, through Justice Douglas, held that Davis had *voluntarily* consented to the search since the amount of compulsion used by the officers was not unreasonable. The permissible limits of persuasion were said to be not so narrow where the officers sought to inspect public property (the ration coupons being the property of the O.P.A.) at a place of business as when private papers were sought at a private residence. The dissent decried the logical extremes of this position and added: "To make voluntariness turn on the nature of the quest instead of the nature of the response of the person in control of the sought documents, is to distort familiar notions on the basis of which the law has heretofore adjudged legal consequences." The same cleavage of the Court appeared in *Zap v. United States*, 326 U.S. 692. The defendant, an aeronautical engineer under contract with the Navy Department to perform experimental work, falsified his costs in presenting his voucher to the government. F.B.I. agents who audited his books under the contract discovered a padded check among his accounts and took the check as evidence despite protest. Justice Douglas again held the seizure valid because the search was authorized by contract. Justice Frankfurter, dissenting, contended that the seizure was distinct from the search and that the check could not have been lawfully obtained even with a warrant since it was not material of which possession was a crime. Appraisal of these two decisions depends upon how literally one believes the words of the Fourth and Fifth Amendments must be followed. With relative unanimity, however, the Court held that for Congress to empower administrative officials to issue subpoenas duces tecum in aid of authorized inquiries did not violate the Fourth or Fifth Amendment. *Oklahoma Press Pub. Co. v. Walling*, 327 U.S. 186 (Justice Murphy was a lone dissenter), noted in 34 *Calif. L. Rev.* 428, 14 *Geo. Wash. L. Rev.* 602.

An interesting example of judicial method occurred when the Court struck down a state Jim Crow statute, not as violative of the Fourteenth Amendment, but as within the interdict of the

cal boards '
of the ce clause. Irene Morgan, a Negress, was case icted by a Virginia state court for non-com- wiance with a statute which required both inter- and intrastate buses to separate without discrimination the white and colored passengers so that contiguous seats would not be occupied by persons of different races. The Supreme Court, limited on appeal to the commerce question, reversed the state conviction and invalidated the statute as a burden on interstate commerce. *Morgan v. Virginia*, 66 S.Ct. 1050, discussed in 46 *Col. L. Rev.* 853.

Among the less spectacular, though important, decisions the Court dealt with familiar topics. For the first time since 1936 an act of Congress was held unconstitutional. Representative Dies, in an effort to remove "subversives" from influential positions in the Government had secured the addition of a section to an emergency appropriation act which cut off the salaries of three government employees whom he had found to have communistic leanings. In affirming a judgment of the Court of Claims awarding these employees their salaries the Court invalidated the section as a bill of attainder, *i.e.*, a legislative act which inflicted punishment without judicial trial. *United States v. Lovett*, 66 S.Ct. 1073, noted in 46 *Col. L. Rev.* 849. Jehovah's Witnesses were allowed to trespass on private property unmolested. Freedom of press and religion permitted a Witness to distribute literature on the streets of a company owned town contrary to the wishes of the management, *Marsh v. Alabama*, 326 U.S. 501, and from door-to-door through a village owned by the Federal Public Housing Authority, *Tucker v. Texas*, 326 U.S. 517. Selection of a jury panel wherein those who worked for a daily wage were excluded because invariably excused by the judge were held to violate the Seventh Amendment's provisions for jury trial in federal courts. Jury trial contemplates an impartial jury drawn from a cross-section of the community and selected by court officials without systematic or intentional exclusion of any group or class. *Thiel v. Southern Pac. Co.*, 326 U.S. 716, noted in 59 *Harv. L. Rev.* 1167. Right to counsel in state criminal proceedings was considered satisfied when the defendant was represented by an attorney on the day of sentence, although without counsel or advice of his right thereto when he was arraigned and pleaded guilty to a robbery charge *Canizio v. New York*, 326 U.S. 705, noted in 46 *Col. L. Rev.* 647. A state conviction of murder at the second trial of defendant Ashcraft was again reversed. The first conviction had been reversed because of the State's use of the defendant's involuntary confession. 322 U.S. 143, discussed in the 1945 review. At the second trial the State used all the jail evidence, except the confession, covering the 36 hours when Ashcraft was held incommunicado and subjected to constant questioning. In remanding the case for a third trial the Court ordered exclusion of all testimony pertaining to what took place during that period. *Ashcraft v. Tennessee*, 326 U.S. 713. For other cases bearing on civil liberties see the cases of *Yamashita, Duncan v. Kahanamoku, Estep v. United States, Knauer v. United States*, and *Girouard v. United States*, discussed in the preceding subhead.

Labor and Business. Following the trend noted in last year's review remedial labor legislation has been interpreted very liberally. Enforcement of the Fair Labor Standards Act, sometimes known as the Wage-Hour Act, has been implemented and coverage extended. The Court has sustained a broad use of the subpoena by the Administrator in checking to see whether a business is within the Act's coverage and, if so, whether there has been compliance. *Oklahoma Press Pub. Co. v. Walling*, 327 U.S. 186. The concept of a free press does not immunize newspapers from the Act's applicability; and a local daily newspaper with a circulation ranging from 9,000 to 11,000 copies, with only about 45 copies—one half of one percent—going out of state, was held subject to the Act. *Mabee v. White Plains Pub Co.*, 327 U.S. 178. Neither the employer nor the employee need be engaged in interstate commerce. It is enough that the employee be employed, for example, in an occupation which is necessary to the production of a part of any other articles or subjects of trade of any character which are produced for interstate commerce. This principle of coverage and the principle of enforcement are well illustrated by the *Schulte* case. Schulte owned a twenty-three story loft building in the garment manufacturing district of New York City. It rented this building to some twelve tenants who received, worked on and returned in intrastate commerce goods belonging to non-occupants who subsequently in the regular course of their business shipped to other states substantial proportions of the clothing produced by the tenants. In *Kirschbaum v. Walling*, 316 U.S. 517, decided on June 1, 1942, the Court had ruled that service and maintenance employees in buildings tenanted by manufacturers producing for interstate commerce were covered by the Wage-Hour Act. After this decision the service and maintenance employees of the landlord, Schulte, made claims under the Act against their employer for overtime pay and an additional equal amount as liquidated damages. Schulte in good faith denied liability contending that since its tenants did not ship their products directly in interstate commerce it was not within the rule of the *Kirschbaum* case. Under threat of suit the employer entered into a compromise with its employees by paying the overtime compensation. Subsequently the employees sued to recover liquidated damages. Recovery was allowed on the theory that the employees were within the Act's coverage, and that the bona fide settlement did not constitute a valid release. *D. A. Schulte, Inc. v. Gangi*, 326 U.S. 712. Ruled within the Act's coverage were: a local company which washed windows of industrial companies engaged in interstate production, *Martino v. Michigan Window Cleaning Co.*, 327 U.S. 173; employees of a company engaged in repairing and installing electric wiring and motors for customers producing goods for interstate commerce, *Roland Electrical Co. v. Walling*, 326 U.S. 657; mechanics of a copartnership engaged exclusively in servicing transportation equipment for an interstate motor carrier, *Boutell v. Walling*, 66 S.Ct. 631. And although the Wage-Hour Act exempts an employer, otherwise within its coverage, who operates a "retail or service establishment the greater part of whose selling or servicing is in intrastate commerce," this exemption contemplates an establishment serving ultimate consumers beyond the end of the flow of goods in commerce. Hence the employer in the *Martino, Roland Electrical* and *Boutell* cases, supra, was not exempted. For general discussion, see Dodd, *The Supreme Court and Fair Labor Standards, 1941–1945*, 59 *Harv. L. Rev.* 321. And in *Anderson v. Mt. Clemens Pottery Co.*, 66 S.Ct. 1187, the Court applied the portal to portal pay theory of the coal mine cases, noted in the reviews for 1945 and 1946, to a manufacturing establishment and laid the basis for current back

pay suits aggregating several billions of dollars.

Remedial coverage under other legislation was also effected. Thus a carrier affiliate, such as a warehouse corporation owned by a railroad, which engaged in loading and unloading railroad cars was performing services in connection with the transportation of property by rail which, if performed by the railroad, could have been included in its line-haul tariffs or separately charged, and was, therefore, subject to both the Railroad Retirement and the Unemployment Insurance Acts. *Railroad Retirement Board v. Duquesne Warehouse Co.*, 326 U.S. 446. The "next of [dependent] kin" clause of the Federal Employers' Liability Act was broadly construed to impose liability upon the carrier in *Poff v. Pennsylvania R. Co.*, 326 U.S. 712. And seamen were held to retain their rights under the Jones Act against the operators of vessels taken over by the War Shipping Administration either by time-charter in which case the seamen remained the private employees of the vessels' owners, or by bare-boat-charter in which case the Administration became the owner and technically the employer while the charterers continued as operators. *Hust v. Moore-McCormack Lines*, 66 S.Ct. 1218. "Back pay" granted by the National Labor Relations Board to an employee because of wrongful discharge constituted "wages" under the Social Security Act and the employee is entitled to have the Social Security Board credit him accordingly. *Social Security Board v. Nierotko*, 326 U.S. 700.

While administrative interpretation was rejected in the last case, administrative action is presumptively correct, may not be short circuited, and is normally sustained. These propositions are illustrated by the following cases. While adhering to its decision noted in last year's review that the Railway Adjustment Board's award against individual claimants is not binding upon them, where they had no notice of and did not personally participate in the hearing preceding the award, unless the union representative who did appear had their authority to act for them, the Court now clarifies its position by placing upon the claimants the burden of showing that the union representative had not been given authority by them to act in their behalf. *Elgin, J. & E. Ry. Co. v. Burley*, 326 U.S. 801. Although a bankruptcy court was warranted in instructing the trustees of the debtor railroad in reorganization to permit yard conductors to operate certain trains within the yards, rather than road conductors, this amounts to no more than the decision any other carrier would have to make and would not finally settle the union-employer dispute which is for the Railroad Adjustment Board. *Order of Railway Conductors of America v. Pitney*, 326 U.S. 561. And on the finding of past hostility against unionization the National Labor Relations Board had the power to include an injunctive provision against prospective interference, and an objection by the employer to this provision made for the first time in an enforcement proceeding comes too late. *N.L.R.B. v. Cheney California Lumber Co.*, 327 U.S. 385.

The Kickback Act of 1934 makes it unlawful to prevent anyone employed in construction or repair work of a public nature or financed in whole or in part by the United States from receiving the full compensation to which he is entitled. The legislative history showed that its main purpose was to suppress the so-called "kick-back racket" by which a government contractor paid his laborers at the rate the Government required, but thereafter forced them to give back a part of the wages received. In *United States v. Carbone*, 66 S.Ct. 734, union officials were indicted under the Act. Their union had an agreement with government contractors whereby the latter undertook to employ as laborers only such persons as were approved by the union officials and to discharge any such employees at the officials' request. Non-union workers were required by the union officials to pay $5 per week, as a condition of keeping their employment, until payment of the union's initiation fee, originally $50, later reduced to $40 and then to $20, had been made. If full payment was made the worker became a member of the union. The Government charged that the defendants, however, retained for their personal use amounts received from laborers who paid less than the full initiation fee required to become a member of the union. The Court concluded that while this might constitute a state crime, such as embezzlement, it did not come within the federal Act since the union officials had a right to demand a closed shop and that the weekly collections were necessary to that right. For discussion of lower court decision, see 46 *Col. L. Rev.* 326.

In applying the Sherman Anti-Trust Act to business the Court has subscribed rather enthusiastically to the Act's underlying thesis that "possession of unchallenged economic power deadens initiative, discourages thrift and depresses energy; that immunity from competition is a narcotic, and rivalry is a stimulant, to industrial progress; that the spur of constant stress is necessary to counteract an inevitable disposition to let well enough alone." Sustaining criminal convictions of the Big Three tobacco corporations, American, Liggett & Myers, and R. J. Reynolds, manufacturers of Luckies, Chesterfields and Camels, the Court holds that actual exclusion of competitors is not necessary to the crime of monopolization. *American Tobacco Co. v. United States*, 66 S.Ct. 1125; see 54 *Yale L. J.* 707 discussing court of appeals' decision. In this case the Court also endorses the *Aluminum* decision of the Second Circuit, 148 F. (2d) 416, where, because of the absence of a Supreme Court quorum, Congress authorized the Second Circuit to decide the case "in lieu of a decision by the Supreme Court." In the *Aluminum* case monopoly had been thrust upon the business by new discovery and original entry into a new field, but this monopoly coupled with power, intent and maintenance of it sufficed to violate the Sherman Act. The Court's contrasting position in divorcing labor unions from applicability of the Sherman Act is noted by Professor Gregory in his recent book, *Labor and The Law*, where he advances the proposition that "labor unionism is a frankly monopolistic and anti-competitive institution" and that society should be protected under the Sherman Act against many undesirable union practices. For other discussion of the problem of adjusting labor-business relationships, see Gerhart, *Labor Disputes: Their Settlement by Judicial Process*, 32 A.B.A.J. 752 (American Bar Association's Ross Essay).

Decisions Concerning the Federal System. Although the Court has quite consistently invalidated state interference with civil liberties, it has been reluctant to adjudge state action improper in other fields of law. An illustrative example is the Court's refusal to pass upon the congressional districting by Illinois on the ground the issue was political. *Colegrove v. Green*, 66 S.Ct. 1198. Two exceptions to this laissez-faire policy are found in the field of state taxation. Doris Duke Cromwell ob-

tained a declaratory judgment that a discriminatory tax assessment by her resident township in New Jersey violated substantive due process. *Hillsborough Township v. Cromwell,* 326 U.S. 620. Richmond's $50 license tax imposed upon solicitors and drummers was also invalidated as a burden upon interstate commerce because of its effect and since itinerants soliciting orders for out-of-state concerns in several towns would be penalized more than intrastate solicitors. *Nippert v. City of Richmond,* 66 S.Ct. 586.

Within the sphere of intergovernmental tax immunity the controversial *Saratoga Springs* case left in doubt the criterion of when a tax impairs the sovereignty of another government. The United States was allowed to tax the State of New York upon its sales of bottled mineral water, but seriatim opinions created uncertainty as to the fundamental rationale. All the justices decried the distinction between state governmental and proprietary functions for tax purposes. Justice Frankfurter would uphold any tax which did not discriminate against a state in favor of private enterprises of a like nature. The late Chief Justice would permit any impost not placing an undue economic burden on the taxed government. In their dissent Justices Douglas and Black anomalously advocated absolute tax immunity for both governments—perhaps to enhance the state's financial ability to pursue liberal, social legislation should the federal government be swept by conservatism. The precipitate of the opinions, however, would appear to give the state a lesser tax immunity than would be accorded the federal government. *New York v. United States,* 326 U.S. 572, see 55 *Yale L. J.* 805. In *S.R.A., Inc. v. Minnesota,* 326 U.S. 703, the United States contracted to sell surplus federal land to a private corporation; and while relinquishing possession retained a security title. Minnesota taxed the realty to the corporation, "subject, however, to the prior rights, liens and interests of the United States." The Court sustained the tax on the grounds that the unrestricted transfer of the property to non-federal hands was a relinquishment of exclusive federal jurisdiction; the United States was only a mortgagee while the corporation held the beneficial and hence taxable interest; and Minnesota had subordinated its tax to the federal interests. Thus, it would appear that when the United States reserves a security interest in property conveyed by it, state acknowledgement of this paramount interest will help avert the vagaries found in intergovernmental tax immunity concepts. Cf. *Wilson v. Cook,* 326 U.S. 685.

In view of the plenary power of Congress over interstate commerce, the Court sustained the McCarran Act, 15 U.S.C. §§ 1011–15, which declared that "the continued regulation and taxation by the several states of the business of insurance is in the public interest." *Prudential Ins. Co. v. Benjamin,* 66 S.Ct. 1142 (upholding South Carolina gross income tax on the aggregate of premiums received within the state by foreign insurance companies). And state power to regulate the solicitation of insurance by an agent representing a non-admitted insurer was sustained in *Robertson v. California,* 66 S.Ct. 1160. A suit to recover a miscomputed tax from Utah tax commissioners was held to be a suit against the state and not maintainable in the federal court without the State's clear consent. *Kennecott Copper Corp. v. State Tax Comm.,* 326 U.S. 711. And a federal claim for unemployment compensation taxes was a debt due the United States which had to be satisfied in full from the estate of an insolvent making a voluntary assignment for the benefit of creditors. *People ex rel. Gordon v. United States,* 66 S.Ct. 841.

Judicial Administration and Law Reform. With Frederick Moore Vinson commissioned as the thirteenth Chief Justice and with the return of Justice Jackson from the Nuremberg Trial where he acted as the American prosecutor, the Court opened its October 1946 Term with a full complement of nine Justices. For the first time in a year the Court's entire personnel is available to hear and decide cases. This should lead to a lighter judicial load for each justice and, what is more important, should facilitate the proper disposition of cases in which the Court is about evenly divided. There is also professional hope that the new Chief Justice can temper the discord to be found among some of the Justices and bring the Court as a unit to a better working level. The new Chief Justice succeeds the late Harlan Fiske Stone who gave twenty-one years of devoted and highly distinguished service to the Court: sixteen years as an Associate Justice, five years as the twelfth Chief Justice. In commemoration see the articles in 46 *Col. L. Rev.* 693–800.

The Rules of Criminal Procedure for the federal district courts, promulgated by the Supreme Court with the assistance of an advisory committee, became effective March 21, 1946. The group of experts assisting the House Committee on Revision of the Laws has prepared a bill to revise the Judicial Code. Because the bill would make some important changes in the jurisdiction and administration of the federal court system, because of its comprehensive coverage, and because of the changing personnel of the Congressional committees interested in this basic legislation it is unlikely that the bill will be enacted at an early date. The Supreme Court's Advisory Committee on Rules of Civil Procedure has made its final report to the Court in which it proposes a number of amendments to the Rules, most of which are largely clarifying in nature. Proposed amendment to Rule 30(b) is, however, important and controversial. For good cause shown it authorizes inquiry into writings obtained or prepared by the adverse party, his attorneys, agents or insurers in anticipation of litigation or in preparation for trial. This repudiates the rule of *Hickman v. Taylor,* 153 F. (2d) 212, certiorari granted 66 S.Ct. 1337, decided by the Third Circuit, sitting *en banc,* in which it held that statements of witnesses and memoranda of such statements made by a party's attorney were privileged and could not be inquired into by the other party. A resolution in opposition to the proposed amendment was adopted by the American Bar Association. Action by the Court on all of the proposed amendments is expected by January 1, 1947, in which event amendments promulgated by the Court would become effective approximately one year hence.

JAMES WM. MOORE.

LEAD. Shortage of lead in the United States in 1946 was greater than at any time during the war, and further government restrictions on its use caused belt tightening by manufacturers of such diverse products as lead-covered cable, storage batteries, paint, and gasoline. Strikes in mines and smelters, both in the United States and Mexico; increased production costs; declining ore reserves; continued dislocation of foreign producing areas; price confusion during lapse of the Premium Price Plan; and a prevailing world price higher than that paid in the United States all contributed to the shortage. The government estimated that United

States industry could have used the record amount of 1,300,000 tons during the year, compared to a total available of 800,000 tons, including secondary (remelted) metal.

A six weeks' mine strike in Mexico, from which most imports come, starting in January, was followed in February by a strike, which continued through June, against 18 U.S. mines, smelters, and refineries of American Smelting & Refining Co. These major disputes, plus intermittent labor disturbances at mines and plants of other major producers seriously handicapped production during the first half of the year, and to a lesser degree, during the latter part. Mines not directly affected by strikes were in many cases forced to shut down because of the smelter strikes making it impossible for them to dispose of their concentrates. The national rail and coal strikes in May also indirectly impeded lead output, according to the U.S. Bureau of Mines.

The lead crisis was worldwide. Western Europe, with heavy reconstruction needs, was unable to draw on its normal prewar sources in the mines of Silesia and Yugoslavia, whose entire output went to Russia. This demand was diverted to mines in the Western hemisphere and Australia. Mines in Burma, out of production during the war, did not resume production. The price of lead in the London market advanced to 9.9 cents per lb., hampering buying abroad by the United States government. The government purchased foreign lead at the world price, reselling to consumers at the lower domestic ceiling price until the final revocation of price control.

Pig lead imports for the year totalled approximately 125,000 tons, most of it from Mexico, plus a substantial tonnage from Canada and Peru. Australian output, which contributed to United States requirements during the war, went to Great Britain in 1946.

In an effort to spur domestic production, the Office of Price Administration on June 3 advanced the price ceiling on primary lead 1.75 cents per pound to 8.25 cents per lb., New York. Secondary lead, remelted from scrap, and anti-monial lead were given equivalent increases, and lead scrap increased 1.55 cents per lb.

Expiration of the price control law on June 30 soon was followed by a rise in the market price to 9.5 cents per lb. When the new price control act became effective July 26, the price reverted to 8.25 cents. During the interim, shipments of lead scrap, with price ceilings removed, soared to new highs. Mine production of lead was not thus affected, however. Suspension of the Premium Price Plan (see 1944 and 1945 YEAR BOOKS) concurrent with the price control lapse created such uncertainty among mines which had been receiving premium price payments for over-quota production, that many were shut down. Reversion to the old price on July 26 found offerings by producers, other than from mines selling under the Premium Price Plan, greatly restricted. Following final revocation of price control November 11, the price rose to 12.55 cents per lb. at the end of 1946.

Mine production in the United States for the year was approximately 332,478 tons (1945: revised, 390,831 tons). Nearly half came from the southeastern Missouri district. Most of the balance was mined in the far Western States, where the Coeur d'Alene district of northern Idaho led in production, with substantial amounts from Utah, Colorado and Arizona.

Secondary recovery of lead from scrap was 350,000 tons, most of it from battery lead plates.

Lead was allocated to consumers by the Civilian Production Administration under its order M-38, with other orders restricting uses and inventories. Because of the restricted quantities available, allocations were considerably smaller than in 1945.

CHARLES T. POST.

LEAGUE OF NATIONS. The League of Nations formally dissolved on April 18 and turned over its non-political activities, library, and buildings in Geneva to the United Nations. Transfer of functions, powers and activities from the League to the United Nations fell into two main categories: functions pertaining to a Secretariat in the matter of the custody of the original signed texts of international agreements and the performance of routine duties not affecting the operation of the agreements or relating to the substantive rights and obligations of the parties; function and powers of a technical and non-political character under international agreements whose execution has hitherto been dependent on the exercise of such powers by the League of Nations or certain of its organs. Pending a survey of the League's non-political functions and activities, the United Nations Economic and Social Council provisionally assumed the work of the following League departments: the Economic, Financial, and Transit Department (particularly its research and statistical work), the Health Section (particularly the epidemiological service), the Opium Section and the secretariats of the Permanent Central Opium Board and Supervisory Body.

The United Nations Educational, Scientific, and Cultural Organization assumed all matters formerly included in the League's Intellectual Co-operation department. The mandated territories which were assigned by the League were placed into the United Nations trusteeship system.

LEEWARD ISLANDS. British possessions in the Leeward Islands of the West Indies consist of the four presidencies of Antigua (with Barbuda and Redonda); St. Christopher and Nevis, with Anguilla and Sombrero; Montserrat, and the Virgin Islands. Area, 422 square miles. Population (1944 estimate), 102,000.

Antigua is the seat of government of the federal colony, which is administered by a Governor and Commander in Chief, assisted by an Executive Council and a Legislative Council of 9 elected and 9 appointed members. The elected members are chosen by members of the legislative councils of the constituent presidencies (except for the Virgin Islands, which have no legislature) as follows: 3 by Antigua, 3 by St. Kitts, 2 by Montserrat and 1 (appointed by the Governor) for the Virgin Islands. (See ANTIGUA.)

LIBERAL PARTY. A Political party organized in New York State May 19, 1944. Chairman: Dr. John L. Childs; Secretary: Joseph V. O'Leary; Vice Chairmen: David Dubinsky, Dr. George S. Counts, Alex Rose, Reinbold Niebuhr; Executive Director: Ben Davidson.

Contains 80 Assembly District Clubs in New York City, County organizations in the various counties of the State; a Trade Union Council comprising A.F. of L. and C.I.O. unions with a membership of over 500,000; a Women's Division; Business Men's Committee; and the Young Liberals as its Youth Section.

It has published: *Declaration of Principles and National Platform; State Legislative Program; For Our City (Municipal Program for New York City);*

America's First Need—A New Political Realignment; America and the Winning of the Peace.

In 1944 its candidates were Roosevelt and Truman; in 1946 Mead and Lehman, for Governor and United States Senator.

State Headquarters: 160 West 44th Street, New York 18, New York.

LIBERIA. A Negro Republic, founded in 1847 by freed slaves from the United States, on the west coast of Africa between Sierra Leone and the Ivory Coast. Capital, Monrovia (population, 10,000).

Characteristics of the Population. No proper census has ever been taken, and the population is estimated at anywhere from one to two million. Only about 60,000 of the coast Negroes are considered civilized by European standards. Among them are some 12,000 Americo-Liberians—the descendants of freed slaves from the United States—who form the governing and intellectual class. The natives are divided among six principal stocks and various smaller tribes. The Mandingoes are Moslems and most of the rest are pagans, though various Christian missions are operating in the country. English is the language of government and commerce. In 1945 there were 204 schools (81 run by the Government), of which two were of college rank. The great mass of the Liberian people is illiterate and wholly innocent of any formal education.

Government. The frame of government is modeled after that of the United States. There is a President and his Cabinet, a Senate and a House of Representatives. The President, elected in 1943 for the term 1944–52, is William V. S. Tubman of the True Whig Party. This party is controlled by a small oligarchy of Americo-Liberian families dwelling in the few coastal cities, for the franchise is restricted to Negro landowners. This party has pretty well monopolized political power in the Republic for the last three generations. The real natives of the country have participated very little in the national administration.

In recent years the government's revenue has exceeded expenditures, the relevant figures for 1944 being $1,598,401 and $1,522,137. Customs account for over half of the income; while debt charges, interest and amortization absorb one-tenth of the outgo. Under the terms of the Loan Agreement with the United States, Liberian finances are supervised by American experts. A first charge on all revenues is the service on the American loan. The external bonded debt as of Jan. 1, 1944 was $1,113,500.

The armed forces consist of a militia of some 4,000 men and an enlisted Frontier Force of over 1,200. According to an agreement signed on March 31, 1942, the United States Government undertook to extend financial and technical assistance for organizing Liberian defense forces. Liberia also permitted the United States to exercise military control over certain of the country's airfields and defense areas. American troops arrived in Liberia in May 1942 to aid in defending the Republic for the duration of the war. Another agreement, signed on Dec. 31, 1943, implemented these previous commitments. Various technical missions and experts from the United States have been employed by the Liberian Government in recent years (see YEAR BOOK for 1944).

Events. President W. V. S. Tubman, who was inaugurated in January 1944, made political history by his policy of rapprochement with the "native" tribes that constitute the great mass of Liberia's population. Hitherto exploited and neglected by the few thousand Americo-Liberians along the coast, these hinterland peoples were gratified to have the President come among them and attempt to win their confidence. His objective, as reported by one observer, was to integrate "them into the country's civic and social stream as citizens of Liberia," and to remove them from the status of "colonial subjects." The new election law, extending the franchise to all who pay the hut tax, would if enforced break the political monopoly of the Americo-Liberians, and perhaps threaten the continued supremacy of the President's own party—the True Whigs. The Tubman administration also announced during the year the outlines of a five-year plan of public works costing $25,000,000 and aimed at raising the economic and social level of the entire country.

All these reforms naturally aroused the animosity of the old guard, whose privileged position was endangered. But apparently the President could count on the benevolent attitude of the United States Department of State, as well as on the loyalty of the bulk of his countrymen, thus leaving the opposition high and dry.

Evidences of American interest in Liberia continued to accumulate. Already operating in the country were several missions, among them a Foreign Economic Administration commission of economic and agricultural exports; an all-Negro public health group; and a geological survey commission. Meanwhile the construction of a deep-water harbor at Monrovia with funds ($15,000,000) advanced by the United States government to be repaid from eventual port revenues, was started. The work was undertaken by the United States Navy, which was to use it for the defense of the "strategic interests of the United States in the South Atlantic," and the Raymond Concrete Pile Co. of New York. When completed the port was to be operated by the Clark-Babbitt Co. of Boston. On February 16 work commenced on the south jetty, in the presence of President Tubman and other dignitaries.

This harbor development project was the scene of the first organized strike in Liberia's history. The walk-out began on December 15, 1945, but after government intervention work was soon resumed while negotiations continued. The fundamental issue was over the great differential in wage rates and conditions of work between the local workers and those imported from abroad. Other complaints dealt with provisions for medical care and various Jim Crow regulations, which were naturally much resented by the Liberian workers.

A source of heated political argument during the year was the concession granted to Lansdell K. Christie of New York on August 27, 1945, permitting him to exploit iron ore and other minerals in the Bomi Hill area and to construct a railroad, telephone system, hydro-electric plant, and other appurtenances. This concession was confirmed by both Houses of the Liberian legislature in December 1945 and January 1946. However, the opposition continued to hurl various charges: that the deal had been consummated in haste and with undue governmental pressure; that it was too favorable to the concessionaire; that it was to run for too long a term (80 years), etc.

By far the most important enterprise in the country is the rubber plantation system of the Firestone interests. On September 20 the Liberian Consul-General in New York gave a banquet in honor of the hundredth anniversary of Liberia's independence. At this gathering it was announced that Firestone had given $250,000 for the construction of an institute of tropical medicine in Liberia, the

annual operating expenses of which ($60,000) were to be provided by the American Foundation for Tropical Diseases.

Liberia, a charter member of the United Nations, distinguished itself at the fall session of the General Assembly by taking a prominent part in the small countries' fight against the veto power of the five permanent members of the Security Council.

Economy. Most of the inhabitants, living in a tribal state, participate little or not at all in the world's money economy. Such resources as the country possesses are largely undeveloped. Almost the only export is raw rubber, produced on the Firestone plantations and shipped out through the port of Marshall, east of Monrovia. In 1944 exports were valued at $10,306,309 and imports (largely manufactured goods) at $4,103,980. There are no railways and very few roads, though the latter are being extended here and there, and no interior telegraph or telephone communications. There are several ports, but none with facilities for servicing vessels at docks; all operations are carried on by lighter. However, a harbor is being built at Monrovia (see *Events*). In 1944 the number of ships entering these ports was 53, of which 39 were American.

ROBERT GALE WOOLBERT.

LIBRARY OF CONGRESS. Dr. Luther Harris Evans, the Chief Assistant Librarian, assumed the duties of Acting Librarian after the resignation of Mr. Archibald MacLeish, the Librarian of Congress, in December 1944 to accept an appointment as Assistant Secretary of State.

Additions to the Library's collections during the fiscal year 1945–46 numbered about four million pieces, representing all types of material normally received through copyright, gift, and purchase, and an enormous quantity of items acquired through exchanges, through transfers from government agencies winding up their wartime activities, and through cooperation of military government and State Department officials in European countries which have been barred to ordinary communications since 1941.

Outstanding among the individual accessions was a collection of books and manuscripts presented by Lessing J. Rosenwald of Jenkintown, Pa., containing specimens of virtually all the important periods of bookmaking from the time of Gutenberg to the present day.

The national motion picture collection which the Library had formally established in 1945 was supported by a substantial Congressional appropriation for the fiscal year 1946–47. In developing its permanent collections the Library has aimed at preserving films which most faithfully record in one way or another the contemporary life, tastes, and preferences of the American people.

A special panel of critics chose 45 feature films, 48 short subjects and 104 newsreels from the 1945–46 output for incorporation in the Library's permanent collection. The motion picture collection also received 26,384 reels of impounded or captured German films—training pictures, newsreels, documentaries, and photoplays—and 105 reels dealing with the San Francisco Conference.

Ninety-two concerts were performed during the fiscal year 1945–46 under foundations connected with the Music Division. Twenty-three of the Whittall Foundation concerts at the Library were performed by the Budapest String Quartet and two were joint recitals by Adolf Busch (violin) and Rudolf Serkin (piano). The Elizabeth Sprague Coolidge medal for eminint service to chamber music was awarded to Alexander Schneider.

In anticipation of the coming into effect of the Legislative Reorganization Act of 1946 the Legislative Reference Service was created, its chief function being to supply members of Congress in an impartial manner with factual information needed for the consideration of measures before them.

By virtue of its central role both among the Government's information-gathering agencies and among the nation's libraries the Library of Congress took the initiative in securing and distributing to research institutions huge quantities of printed matter produced during the war and released after the end of hostilities. Typical was the disposal of approximately a million surplus textbooks which had been used in the Army Specialized Training Program, the Navy V-12 courses, and other educational activities of the service branches. On behalf of the Veterans Administration the Library sorted, listed, and distributed these to schools and colleges during 1946 for the use of World War II veterans enrolled in courses under Public Laws 16 and 346, 78th Congress.

The collection of the Library, at the end of the fiscal year, June 30, 1945, included 7,877,002 printed books and pamphlets, 1,703,599 volumes and pieces of music, 1,639,505 maps and views, 575,083 fine prints, 936,412 photographic negatives, prints, and slides, more than 7,900,000 manuscripts, 43,343 microfilm reels and strips, 11,955 motion picture reels, and 123,134 phonographic recordings.

LIBRARY PROGRESS. Throughout the first postwar year, libraries and librarians attacked the problem of library extension with renewed vigor on local, state, and federal levels of government. New emphasis was placed on recruiting; the adult education movement gained impetus while librarians strengthened the old, and experimented with new methods of service.

State and Federal Relations. Appropriations for state library agencies and for state aid to libraries were generally increased during 1946.

In June, Missouri passed library laws which established the Missouri Library Commission. On October 15, a bill appropriating $212,000 for state aid to libraries was signed by the governor. The new law provides for a public library service fund, one-half of which will be used for grants to established libraries meeting certain specified standards, and one-half for equalization and establishment of new service.

Ontario, Canada, secured new regulations covering grants to public libraries while Saskatchewan passed an act to provide for the establishment and maintenance of regional libraries.

Georgia included an additional $50,000 in the Department of Education budget for state and for rural library service. In Louisiana, aid was increased by $50,000 for the biennium 1946–1948; Maryland received its first appropriation of $20,000 for 1946–1947, as aid to county libraries; New York State increased aid by $2,000, for the year 1946–1947, to registered libraries meeting standards set by the Regents. The sum of $300,000 was appropriated to the Illinois State Library for 1945–1947, for a series of demonstrations of rural library service in large areas called districts. In Vermont, $66,000 was appropriated for 1946–1947 for four regional library centers and bookmobile services. Michigan received an increase of over $70,000 for 1945–1947 for existing libraries and for the development of new services. No state or province re-

duced its appropriation for library extension agencies or state aid during 1946.

Although 26% of the total population is still without library service, 83 county or regional libraries were established last year, raising the total to 808.

The Library Development Fund campaign, closed officially at the A.L.A. Conference in Buffalo, New York, with a total of over $88,000 in volunteer contributions from librarians. These funds are being used to maintain a four year program of library advancement administered by the American Library Association.

The National Relations Office of the American Library Association began operations October, 1945, in support of this program. Working with other library agencies, the office has been concerned with: the disposal of surplus books, and other surplus property to libraries; recognition by the government of the essentiality of library service in any national research program; inclusion of libraries in public works proposals; social security for library employees; maintenance of low postal rates on books; improvement in document distribution; distribution of war maps; and federal aid for demonstrations of library service especially in rural areas.

The Public Library Service Demonstration Bill (S. 1920—H.R. 5742), introduced into the House and Senate respectively March 13 to provide library demonstrations in rural areas, won the approval of the Senate Committee on Education and Labor, and of a sub-committee of the House Education Committee before Congress adjourned. The bill will be reintroduced at the next session of Congress.

This bill, as presented, calls for annual appropriations of $25,000 for four years to any state with an authorized library administrative agency, which establishes policies and methods for utilizing the fund to maximum advantage. Additional funds would be used for demonstrations of library service in areas without an established library program or to improve existing conditions. Federal claims would be discontinued when library service's claim on local and state tax support had been demonstrated.

International Relations. American libraries did much throughout 1946 to assist libraries and librarians in foreign countries especially in devastated European war areas.

Of particular importance in 1946 was the American Book Center's campaign for books to be distributed to devastated libraries in war areas of the allied nations; interchange of librarians with foreign countries; attendance of students from other countries in American Library schools; maintenance of U.S. Information Centers abroad; and the acquisition by American libraries of important foreign publications, unobtainable in war years.

The importance of libraries in International Relations was emphasized in the program of the United Nations Educational, Scientific, and Cultural Organizations. Luther Evans and Verner Clapp of the Library of Congress and Ralph Shaw, librarian of the U.S. Department of Agriculture, took part in preliminary conferences in Paris in the Spring of 1946. Carl H. Milam, executive secretary of the American Library Association and Milton E. Lord, director of the Boston Public Library served as library consultants to the UNESCO delegation which met in Paris in late November. Ralph Ulveling of the Detroit Public Library represents the A.L.A. on UNESCO's national advisory commission.

The American Library Association continued to administer American libraries in the capital cities of Mexico, Nicaragua, and Uruguay with funds provided by the Department of State while books were sent free to other Latin American countries, from funds provided by the U.S. Department of State.

Professional Training and Personnel. Although enrollments in the 34 accredited library schools again showed an increase in 1945–46, the demand for trained librarians continued to be greater than the supply. In 1946 there were enrolled in library schools 1,499, as compared with 1,032 for the previous year. In the two Canadian library schools, 61 students were enrolled in 1945–1946, an increase of one-third.

Most library schools, in conjunction with the A.L.A. Board of Education for Librarianship, were engaged, during the past year, in revising library school curricula with special emphasis on undergraduate training programs. Arrangements were made at many library schools to admit veterans at mid-term.

The A.L.A. Board of Education for Librarianship recommended experimentation with refresher correspondence courses and short courses for untrained librarians, already in service in small libraries, in order to alleviate the shortage of personnel. A controversial publication during the year was Joseph L. Wheeler's *Progress and Problems in Education for Librarianship,* which questioned the value of present trends in professional education.

Two library schools were accredited in 1945–1946: New York State Teachers College, Geneseo, New York; and Marywood College, Department of Librarianship, Scranton, Pennsylvania.

The A.L.A. Board of Personnel Administration issued a *Salary Policy Statement* which advocated among other recommendations a minimum beginning salary of $2,100 for professional library positions. A new statement of policy on tenure was also formulated.

Increases in salary were adopted in classification and salary plans by the Civil Service Commission and public libraries in Akron, Ohio; Chicago, Illinois; Des Moines, Iowa; Indianapolis, Indiana; Kansas City, Missouri; Milwaukee, Wisconsin; New York, New York; and the California and Michigan state libraries.

Books and Reading. The interest created in books and libraries during the war continued to grow during 1946. The tremendous free circulating library built up by the Army acquainted millions of servicemen with library service. As civilians, they are using the library to acquaint themselves with vocational and educational opportunities, and to continue reading habits formed in the Army.

The growing interest in library adult education is demonstrated by the progress of the Great Books Movement. Libraries are increasingly adopting discussion programs as popular education techniques.

Library service to business is developing even among the smallest libraries. Detroit, Newark, and Indianapolis libraries have been among the most active in this service.

Libraries have been devoting more attention to the circulation of educational and documentary films.

Opinion polls of librarians returning from military service, and of several hundred library trustees showed that both these groups believe that public, as well as school and college, libraries must accept films as an important educational tool, because of their success in military and industrial training.

School Libraries. State leadership in the development of school libraries made encouraging progress during the past year. In Indiana, the position of state library adviser has been transferred from the Indiana State Library to the State Department of Education. The 1945–1946 Equalization Bill in Connecticut provides increased state funds for school libraries.

In the South, a grant was made from the General Education Board to the Library Committee of the Southern Association of Colleges and Secondary Schools for a field visitor to advise on training for school librarianship and on state school library programs. Funds from the same source have been available for conferences on school librarian training, standards for school libraries, and school library supervision. As a result of the combined program, three state education departments have requested and have received the assistance of the General Education Board in establishing advisory service for school libraries. Texas, Mississippi, and South Carolina are now added to the states which have state school library supervisors. There are nineteen such supervisors throughout the country.

Some of the state expenditures for school library materials for the school year, 1945–1946, were: Florida, $69,059; New Jersey, $10,000; Minnesota, $52,647; Georgia, $134,000; North Carolina, $116,656; Tennessee, $38,455; and Wisconsin, $146,406.

The value of library service to young people was emphasized throughout the year at conferences of both library and civic organizations. The General Federation of Women's Clubs chose as its theme for 1946–1947, "A Youth Library in Every Community."

Gifts, Grants and Buildings. A total of $416,455 was received by the American Library Association to be used for special projects during the fiscal year ending August, 1946.

Book collections and monetary gifts to libraries for the purchase of books have materially aided libraries and their services throughout the past year. The first undergraduate library at Harvard University will be established through a $1,500,000 grant from Thomas W. Lamont. Gifts to public libraries and library agencies during 1946 included: a $100,000 trust fund for the Youngstown Public Library, Youngstown, Ohio, given by Justice John H. Clarke. Income from the bequest will be used to purchase books. The Library Association of Portland, Oregon, will receive $2,400 a year from a trust fund established by Thomas Roberts. A $25,000 bequest trust fund was left by Mrs. Lena D. Hesse to the Milwaukee Public Library, Milwaukee, Wisconsin. The Public Library, Monteguina, Indiana, received approximately 1,000 volumes from the estate of the late Lula J. Case. This gift also included a collection of famous paintings. The Macalester College Library received nearly 1,000 volumes on American hymnology, the greatest collection of such materials in the United States.

Among smaller gifts were a bequest of $1,500 to the Greenfield Public Library, Greenfield, Iowa, from Mrs. Celia F. Holcomb; $1,000 to the Clarksville Public Library, Clarksville, Iowa, by R. L. Slimmer; a bequest of $1,000 to the Washington Public Library, Washington, Iowa, by Dr. Ludwig Simon; a $3,000 bequest to the Lynn Public Library, Lynn, Massachusetts, under the will of Walter O. Faulkner, trustee of the library for over fifty years; a $2,500 endowment fund to the Public Library, Waupum, Wisconsin, from the estate of Betty Kennedy.

Gifts of money and funds for library building included $3,700 from the estate of Lucy Rising Rocks bequeathed to Wyoming, Iowa, to establish and maintain a library; $4,800 from the A. J. Cross estate bequeathed to Shenandoah, Iowa, to be used with the building fund; $10,000 left by Mrs. Mattie Utting to Dodgeville, Wisconsin, to help erect a library building. Over $90,000 left by H. E. Swen to Kahoka, Missouri, for the construction of an H. E. Swen Memorial Library to serve Kahoka and Clarke Counties. And $25,000 has been given by various donors to Indianola, Mississippi, for a public library. The Baldwin-Wallace College received a gift of $152,000 from George W. Ritter, an alumnus of the college for the construction of a modern library building.

Plans made for extensive construction of library buildings have been delayed because of the shortage of materials. The next few years will probably see an unprecedented growth in modern library building along the lines of the long range master plan developed by the Detroit Library Commission for that city.

Libraries as war memorials are planned in many communities, some of which have already raised the necessary funds. In Augusta, Georgia, a group of local veterans have taken the leadership, but in most cases, money has been raised by the community at large.

Publications. During the past year, in addition to the regular periodicals, A.L.A. *Bulletin, Booklist, Subscription Books Bulletin, College and Research Libraries,* and *Hospital Book Guide,* the A.L.A. Publishing Department issued nine new items; reprinted or arranged to reprint twenty publications; and inaugurated the selling of children's stories on records and the Canadian film, "Library on Wheels." Among the 1946 publications were: *Library Service in Business, Its Place in the Small City,* Marian C. Manley; *College and University Librarians and Librarianship (Library Planning Document in the College Field); Rehabilitation Materials on Today's Problems for Veterans and Civilians,* Mary A. Sweeney; *Insurance of Libraries,* Dorothea M. Singer; *Books for Adult Beginners,* Cincinnati Public Library Staff; *Arsenals of a Democratic Culture: A Social History of the American Public Library Movement in New England and the Middle States, 1850–1900,* Sidney Ditzion.

Among the books in the library field issued by other publishers are: *Books and Libraries in Wartime,* Pierce Butler, University of Chicago Press, 1945; *Library Extension,* University of Chicago Press, 1946; *General Education in a Free Society: Report of the Harvard Committee,* Harvard University Press, 1945; *Fifty Years of Best Sellers,* Alice Payne Hackett, R. R. Bowker, 1945; *Library Extension, Problems and Solutions,* Carleton Joeckel, University of Chicago Press, 1946; *The University Library: Its Organization, Administration and Functions,* Louis R. Round and Maurice F. Tauber, University of Chicago Press, 1945; *Evaluation and Revision of the Library School Curriculum,* Peabody Press, 1945.

MARY C. TUOMEY.

LIBYA. An Italian possession in North Africa, conquered by Allied forces under General Montgomery in the winter of 1942–43. Area, 679,358 square miles; population (January 1, 1939) 888,401. Of these 763,179 were Moslems, 30,046 Jews, 89,098 Italians, and 6,078 other Europeans (including many Maltese). By 1943 hardly any Italians remained in Cyrenaica (the eastern part of Libya), while some 38,000 remained in Tripolitania (the western part). Capital, Tripoli.

The Fascist regime divided the country into four coastal provinces—Tripoli, Misurata, Bengasi and Derna—and a Military Territory of the South comprising the very sparsely inhabited desert interior. In 1939 the four provinces were incorporated into the national territory of Italy. However, full citizenship was not awarded to the native population. Various other political, economic, and cultural discriminations were also enforced against the natives and in favor of Italian colonists. Libya is now under British military administration.

By 1939 much of the internal economy and foreign trade of Libya had become artificial as a result of Fascist autarchic policies. The region is devoid of any important natural resources, mineral or otherwise. Only under the impetus of large-scale government-spending programs could Libya's agriculture be made to produce exportable surpluses of cereals, fruits, and vegetables. The colony's foreign trade was largely with Italy, the latter accounting for over 90 percent of both its imports and exports. (See YEAR BOOK for 1943, page 337, for latest available statistics.)

Events. One of the most knotty problems taken up by the victorious Powers during 1946 was that of the disposition of Italy's African colonies, notably Libya. The Russians put forward a claim to the sole trusteeship of Tripolitania, but this had been opposed by all the other Great Powers, as well as by Italy and the Arab League. The latter, through its Secretary-General, Abdul Rahman Azzam Pasha, declared on April 29 that the Tripolitans, with the aid of the Arab world, would resist by force any effort to place them under Soviet tutelage. Earlier, towards the end of January, the same spokesman had disclosed that the League states were restating, in notes to the Great Powers, their well-known demand that Libya be made independent, and that if any temporary trusteeship were to prove necessary, it should be awarded to the Arab League and not to some "outside" Power or Powers.

The positions of the French was that, if Libya or Tripolitania were to be put under trusteeship, they preferred Italy to either Russia or Great Britain as trustee. The United States wanted all the Italian colonies given their independence after a specified period of collective trusteeship under the United Nations Trusteeship Council. The Italians, of course, insisted that the colonies be returned to them. They pointed out that these possessions had been acquired before Fascism took power and that the Italian people, over several generations, had expended an immense amount of effort, money and blood in order to "civilize" them.

Since the early days of the war the British had been committed against the return of the Senussi —i.e. Cyrenaica—to Italian rule. For a time they had, however, seemed disposed to allow Italy a trusteeship over Tripolitania. Meanwhile, British forces continued in effective control of all three of Italy's African colonies, and London expressed no anxiety to settle the question.

The British position changed in late April after a meeting in London of Dominion representatives. Foreign Secretary Bevin therefore told the Big Four Conference in Paris on April 29 that his government was now in favor of independence for a united Libya and that the treaty provisions for setting up such a state should be made in consultation with the inhabitants of the country.

At the same session Molotov gave details of a Russian proposal for having each Italian colony administered by an advisory commission composed of five members—three from Great Powers and two from small ones. The chief administrator would be of a different nationality in each case—Russian for Tripolitania—but the deputy administrator would in all cases be an Italian. By May 10 the Soviet delegate was willing to put Libya under a United Nations trusteeship with Italy as administrator. Bevin demurred as far as Cyrenaica was concerned, but agreed for Tripolitania. The United States representative, Secretary of State Byrnes, wanted a definite time limit set on the period of trusteeship.

Bevin's statement of April 29, proposing unity and independence for all of Libya, had met with a welcome response from opinion in that country. When the purport of the May 10 discussions in Paris reached Libya, there was intense disappointment and the British military authorities felt obliged to take measures against the threat of violence on the part of nationalist elements which boldly proclaimed that they would resist to the death any attempt to reimpose Italian rule on them. Inevitably the tribes in the interior grew restive over the continued political uncertainty of the country. A united national front of Tripolitan political parties was formed and two representatives of it were sent to Cairo in order to obtain assistance from the Arab states. At the end of May the conference of Arab rulers meeting in Cairo announced its support of Libyan independence.

On June 20 the Big Four decided to defer solution of the Italian colonial problem for a year. On July 3 they agreed that Italy must renounce title to her African territories and that Britain would continue to administer them until a final settlement had been reached. They also declared that this settlement should be made so as to conform to one, or a combination of several, of the following criteria: (1) independence; (2) incorporation within a neighboring territory; (3) trusteeship under one or all of the United Nations. The Italians threatened that they would never sign a treaty containing such provisions. Nevertheless, the 21-power Luxembourg Conference, which convened later in the summer, substantially approved the recommendations of the Big Four concerning the Italian colonies. During the discussions of the Political and Territorial Committee for Italy on September 25, the British delegate stated that his government was inclined to let Egypt have a strip of Cyrenaica.

While the Great Powers debated over the future of Libya, the politically aware elements in that country organized themselves into groups and carried on propaganda and agitation. In Tripolitania no single personality or family stood out as the inevitable political head. Several potential leaders appeared, such as Salem Bey Muntasser (formerly an adviser of the Italians), Bismir el Saadawi (in exile for over two decades, serving part of that time as counselor to King Ibn Saud), Abdul Rahman Azzam Pasha (secretary-general of the Arab League, also an exile during Fascist rule), Sheik Abdul Isad al Alim (Mufti of Tripoli), Awni ben Souf (long a rebel against Italian rule and during World War II the head of the Tripolitan Defense Committee in Cairo), and Ahmed Fiki Hassan (president of the Tripolitan Nationalist Party).

In Cyrenaica the long-recognized leader was the Sayed Idriss el Senussi, head of the Senussi order, or sect, which claims millions of adherents in the various Arab lands. The Sayed and his principal advisers had been forced by the Fascist Government to flee the country and had hence spent many years in the Middle East, where they had become closely associated with the Pan Arab move-

ment. They wanted an independent Libya only if its ruler—emir or prince—were to be the Grand Senussi himself. If there must be some sort of dependence on a Great Power, they much preferred Great Britain. It was not certain that some of the more progressive elements in Tripolitania would accept the sort of archaic theocratic regime that Senussi rule denoted.

Meanwhile the British administration had permitted a number of selected native Libyans to enter the civil service in various capacities and thereby gain much-needed experience. However, the consultative assembly was appointed by the British, rather than elected by the people, and the Arabs complained that altogether too many Italian officials, including a number of Fascists, were being kept on in executive and judicial positions where they were enforcing Fascist laws already abandoned in Italy. In Cyrenaica few Italians remained, but there were 38,000 of them in Tripolitania. The farming colonies established by the Fascist Government for Italian settlers in the highlands of Cyrenaica had been taken over by Arabs. Bengazi's population had dropped from 70,000 to 30,000, its harbor was cluttered with the hulks of 67 ships and all around it lay immense piles of rusting war material.

Reports that Britain was building air and naval bases in Cyrenaica to replace those being abandoned in Egypt were shown, according to the observations of neutral visitors, to be unfounded.

ROBERT GALE WOOLBERT.

LIECHTENSTEIN. A principality in central Europe, adjoining Switzerland on the east. Area, 62 square miles. Population (1941 census), 11,218. Capital, Vaduz (2,020 inhabitants). Chief products: corn, wine, fruit, wood, marble. Main industries: cotton spinning and weaving, leather goods, pottery, and livestock raising. Liechtenstein belongs to the Swiss Customs Union; Swiss currency is used. Budget estimates (1946): revenue 2,693,760 francs; expenditure 2,809,377 francs. Public debt, December 31, 1945, 2,669,615 francs. Reigning Prince, Francis Joseph II (succeeded Aug. 25, 1938). Head of Government, Alexander Frick (September 3, 1945).

LITERATURE, American and British. The year 1946 was a dull year for new writing in English. The promise that seemed to appear in 1945 was not fulfilled; few works broke fresh ground either in form or substance; even the long-established writers failed to contribute much, and vivid new writers were few. To be sure, the patterns that have characterized fiction, poetry, drama, biography, etc., since World War I appeared again, so that it could not be said, "Here and here is failure." The great public could not feel disappointment; it continued to get what it demanded and was accustomed to. But the seeker for brightness, vitality, creativeness would probably be disappointed in 1946.

Biography. Biographers, during the year, presented an interesting group of American political figures, such as: *Alexander Hamilton,* by Nathan Schachner; *Lincoln's War Cabinet,* by Burton J. Hendrick; *Old Rough and Ready: the Life and Times of Zachary Taylor,* by Silas Bent McKinley and Silas Bent; *The American* (Gov. Altgeld of Illinois), by Howard Fast; *Brandeis,* by Alpheus Thomas Mason; *The Roosevelt I Knew* (F.D.R.), by Frances Perkins; *As He Saw It,* by Elliot Roosevelt, about his father; *The Wilson Era: Years of War and After, 1917–1923,* by Josephus Daniels, the fourth volume of his autobiography; *The Autobiography of William Allen White; James Munroe,* by W. P. Cresson; *The Selected Writings of John and John Quincy Adams,* edited by Adrienne Koch and William Peden; the mysterious *Diary of a Public Man,* anonymous, used by historians but not previously published, about pre-Civil War events; *Horace Greeley,* by Henry Luther Stoddard; *Alexander H. Stephens,* by Rudolph Von Abele; *General George Crook, His Autobiography,* an Indian and Civil War fighter, edited by Martin F. Schmitt; *The Brereton Diaries,* by General Lewis H. Brereton, about World War II; *Starling of the White House,* reminiscences of a Secret Service man, told to Thomas Sugrue by Edmund W. Starling; and *Public Men In and Out of Office,* edited by J. T. Salter.

Biographies of American literary figures were few. Such were: *Mark Twain, Business Man,* edited by Samuel Charles Webster; *Hubert Howe Bancroft,* by John Walter Caughey; *The Boy I Left Behind Me,* by Stephen Leacock; and *Man and Shadow,* autobiography by Alfred Kreymborg.

But there was the usual fascinating group of miscellaneous Americans. Ellery Sedgwick's *The Happy Profession* was editing. Thomas W. Lamont described *My Boyhood in a Parsonage,* but went beyond his boyhood. Gerald W. Johnson's *An Honorable Titan* was Adolph S. Ochs. *American Daughter,* by Era Bell Thompson, gave a negress between the two races. Lora Wood Hughes, as a nurse, had *No Time for Tears.* Ferris Greenslet pictured *The Lowells and Their Seven Worlds.* Walter L. Howard showed *Luther Burbank* as a victim of American hero-worship. John Rothwell Salter's *Rhees of Rochester* gave a university president; Cornelius Weygandt's *On the Edge of the Evening* was autobiography of an English professor, while Thelma Jones, in *Skinny Angel,* showed the life of a faculty child. Stewart H Holbrook's *Lost Men of American History* considered the almost forgotten. Hermann Hagedorn's *Americans: a Book of Lives,* included seventeen chosen by poll and was to be distributed abroad. Norman Anthony's *How to Grow Old Disgracefully* and Hildegarde Dolson's *We Shook the Family Tree* were each humorous, but in different ways. Lilly Daché's *Talking Through My Hats* was a success story. So was Louise Baker's *Out on a Limb,* about one-leggedness. *Really the Blues,* by Milton Mezzrow and Bernard Wolfe, gave the life of a jazz-player. Roy Meredith's *Mr. Lincoln's Camera Man,* a Civil War photographer. A different war appeared in *My Three Years with Eisenhower,* by Captain Harry C. Butcher. A. J. Hanna's *A Prince in Their Midst* told about Achille Murat in South Carolina, while H. J. Eckenrode's *The Randolphs* gave a native aristocracy. Gene Fowler's *A Solo in Tom-Toms* and James Montgomery Flagg's *Roses and Buckshot* were written for newspaper readers. American girls as wives of Europeans were described in Mary Mian's *My Country-in-Law* and Eleanor Perenyi's *More Was Lost. Burma Surgeon Returns,* by Gordon S. Seagrove, was a sequel to a success. Helen Augur's *Passage to Glory: John Ledyard's America,* told about a wanderer. S. Hurok told Ruth Goode about his troubles with singers and dancers for *Impresario.*

Biographies of British writers included: Hesketh Pearson's *Oscar Wilde;* T. G. Wilson's *Victorian Doctor,* about Oscar Wilde's father; Dame Una Pope-Hennessy's *Charles Dickens;* Aurelia Brooks Harlan's *Owen Meredith;* Margaret R. Grennan's *William Morris: Medievalist and Revolutionary;* Marchette Chute's *Geoffrey Chaucer of England;* Charles Norman's *The Muses' Darling* (Christopher Marlowe); Margaret Cole's *Beatrice Webb;*

Anne B. Fisher's *No More a Stranger*, about Robert Louis Stevenson in California. Living British writers wrote about themselves in: Sir Osbert Sitwell's *The Scarlet Tree*, second volume of his autobiography; Howard Spring's *And Another Thing . . . : J. B. Yeats' Letters to His Son, W. B. Yeats, and Others*, edited by Joseph Hone; Siegfried Sassoon's *Siegfried's Journey 1916–1920*, the third, or perhaps the sixth, volume of his autobiography, three having been disguised; Thomas Burke's *Son of London;* Sir Philip Gibbs' *The Pageant of the Years;* William McFee's *In the First Watch.*

Fanfare for Elizabeth, by Edith Sitwell, about the Queen's girlhood, was one of the few British political biographies. Others were: *Ambassador on Special Mission*, to Spain, by Sir Samuel Hoare; *Lady Sarah Lennox*, by Edith Bodker Curtis; and *Grooves of Change*, by Viscount Samuel.

Europeans appeared in: Matthew Josephson's *Stendhal;* Ernest J. Simmons' *Leo Tolstoy;* volume iv and last of Ernest Newman's *Life of Richard Wagner;* Harold Lamb's *Alexander of Macedon;* Harrison Brent's *Pauline Bonaparte;* Gertrude Marvin Williams' *Priestess of the Occult: Madame Blavatsky.*

Asiatics and Africans were to be found in: *Man-Eaters of Kumaon*, by Jim Corbett; *Raffles of Singapore*, by Emily Hahn; *Sun Yat-sen*, by Stephen Chen and Robert Payne; *The Mahatma and the World*, about Gandhi, by Krishnalal Shridharani; *The Messenger: the Life of Mohammed*, by R. V. C. Bodley; *A House in Bali*, by Colin McPhee; *America Is in the Heart*, by Carlos Balusan, and *My Africa*, by Mbonu Ojike.

Criticism and the History of Literature. Dramatists were studied in Eric Bentley's *The Playwright as Thinker*, about modern drama; in John Palmer's *Political Characters of Shakespeare;* in Harley Granville-Barker's *Prefaces to Shakespeare, Fourth Series*, about *Othello;* in Allardyce Nicoll's *A History of Late Nineteenth Century Drama, 1850–1900;* in *G.B.S. 90*, edited by S. Winsten, in celebration of Mr. Shaw's birthday. About the poets: Mark Schorer's *William Blake* received high praise. Mark van Doren's *The Noble Voice* considered ten long poems. C. M. Bowra's *From Virgil to Milton* dealt with epics. Marjorie Hope Nicolson's *Newton Demands the Muse* showed the influence of his *Opticks* on poetry. Horace Gregory and Marya Zaturenska published *A History of American Poetry 1900–1940*. Wallace Fowlie dealt with *Rimbaud.* Gay Wilson Allen published *Walt Whitman Handbook.*

Lord David Cecil's *Hardy the Novelist* was impressive as fiction criticism. In that field were also George Orwell's *Dickens, Dali and Others*, and Janko Lavrin's *Tolstoy: an Approach.* In aesthetics appeared Stephen Coburn Pepper's *The Basis of Criticism in the Arts.* Frederick J. Hoffman, Charles Allen, and Carolyn F. Ulrich gave the history of *The Little Magazine.*

Drama. Eugene O'Neill's first play since 1934, *The Iceman Cometh*, confusingly attacked illusions. *The State of the Union*, by Howard Lindsay and Russel Crouse, won the Pulitzer Prize by showing a "liberal" Republican candidate for President. Also on the liberal side were Arnaud D'Usseau and James Gow's *Deep Are the Roots*, attacking racial prejudice, Garson Kanin's *Born Yesterday*, the amusing enlightenment of a gangster's girl, and Edward Chodorov's *Decision.* Elmer Rice's *Dream Girl* suffered from narcissism. Sean O'Casey was poetic and dull in *Oak Leaves and Lavender.* John Van Druten argued adultery pro and con in *The Mermaids Singing.* Domestic imbroglio appeared also in George Kelly's *The Deep Mrs. Sykes.* J. P. Marquand and G. S. Kaufman satirized Boston in *The Late George Apley.* The Enoch Arden theme appeared in Daphne du Maurier's *The Years Between. Dunnigan's Daughter*, by S. N. Behrman, had a power-mad father. The preface to Irwin Shaw's *The Assassin* powerfully attacked the New York critics. Also notable were: Emlyn Williams' *Spring, 1600;* Tennessee Williams and Donald Windham's *You Touched Me;* Kenyon Nicholson and Charles Robinson's *Apple of His Eye*, about an old man's love; Harry Brown's war play *The Sound of Hunting;* Joseph Fields and Jerome Chodorov's *The French Touch;* Elsa Shelley's *Pick-up Girl;* and Millard Lampell's radio plays, *The Long Way Home*, about wounded soldiers.

Essays. The war was reflected in Lewis Mumford's *Values for Survival;* in John Dos Passos' *Tour of Duty;* in Max Shulman's *The Zebra Derby*, humor about veterans becoming civilians; in Gertrude Stein's *Brewsie and Willie.* Carl Van Vechten edited *Selected Writings of Gertrude Stein*, in addition. Eleanor Roosevelt's *If You Ask Me* was answers to questions from the public. Sir Max Beerbohm's *Mainly on the Air* showed his habitual polish, though the pieces were broadcast. Earnest Elmo Calkins' *"And Hearing Not"* dealt with deafness and other topics. *An American Year*, by Hal Borland, provided an essay a month. Frank Sullivan, with *A Rock in Every Snowball*, and S. J. Perelman, with *Keep It Crisp*, provided humor. John Mason Brown's *Seeing Things* was largely concerned with drama. Robert van Gelder interviewed successful authors to publish *Writers and Writing.* Titles clearly indicate contents in *A Naturalist's Scrapbook*, by Thomas Barbour, and *Campus versus Classroom*, by Burges Johnson. Graham Hutton, an Englishman, described *Midwest at Noon.* J. Donald Adams edited *The Treasure Chest*, contemplative prose, and Walter de la Mare an anthlogy of poetry and prose about *Love.*

Fiction. It was perhaps characteristic of 1946 that the outstanding novels of the year should be satirical. Frederic Wakeman's *The Hucksters* attacked the advertising business; George Orwell's *Animal Farm* attacked the Communist state; Helen Howe's *We Happy Few* made fun of Harvard intellectuals Perhaps Donald A. Stauffer's *The Saint and the Hunchback* had its satirical leanings, too; it was laid in the seventh century, however, and considered the problem how to be good. C. S. Lewis, the Christian propagandist, published two fantasies, *That Hideous Strength*, about some strange doings at an English college, and *The Great Divorce*, between Heaven and Hell. Robert Graves, however, in *King Jesus*, revised the biography as known through the ages.

A surprise appeared in Theodore Dreiser's last book, *The Bulwark*, which showed a Quaker suffering like Job. Gladys Schmitt rewrote another old story in *David the King.*

More contemporary, even topical, were such novels as J. B. Priestley's *Bright Day*, about a man trying to be young again; Ethel Vance's *Winter Meeting*, the love affair of a New England woman and a would-be priest; Charles Jackson's *The Fall of Valor*, a man struggling against homosexuality; John P. Marquand's *B.F.'s Daughter*, rich people caught in the war; Robert Penn Warren's *All the King's Men*, which he had to deny was about Huey Long; Upton Sinclair's *A World to Win*, number seven in the Lanny Budd series; Mazo de la Roche's *Return to Jalna*, number ten in the Whiteoaks series; James T. Farrell's *Bernard Clare*, about a would-be writer; Frederic Prokosch's *The Idols*

of the Cave, about a man in love with a ballet-dancer; Margery Sharp's *Britannia Mews,* London's Bohemia; William Saroyan's *The Adventures of Wesley Jackson,* his usual message but this time with an army background; Kenneth Fearing's *The Big Clock,* an unusual detective story; and Bruce Marshall's *Yellow Tapers for Paris,* set before 1940, and with a Christian slant.

Strange backgrounds appeared in such novels as Pearl Buck's *Pavilion of Women,* life among rich Chinese; Rumer Godden's *The River,* a small girl in India; Sholem Asch's *East River,* the Jewish community; Michael Sadleir's *Forlorn Sunset,* about the London underworld of the '60's and '70's; George R. Stewart's *Man: an Autobiography,* which fictionized anthropology; Waldo Frank's *Island in the Atlantic,* a novel of long philosophical reach.

The usual goodly crop of historical novels included: *Lord Hornblower,* by C. S. Forester, the fifth of the series; *The King's General,* by Daphne du Maurier, the old hokum; *Then and Now,* by W. Somerset Maugham, about Machiavelli; *Land,* by Liam O'Flaherty, about Ireland's troubles in the 1880's; James M. Cain's *Past All Dishonor,* Virginia City in the 1860's; Richard Aldington's *The Romance of Casanova,* who had only one real love, of course; Kate O'Brien's *For One Sweet Grape,* about Philip II of Spain and a great lady; *Holdfast Gaines,* by Odell Shepard and Willard Shepard, the U.S. just after the Revolution; Conrad Richter's *The Fields,* American frontier life about 1850; T. Morris Longstreth's *Two Rivers Meet in Concord,* about the great days of the Concord group.

Though the influence of the war was pervasive, it had brought forth few good novels by the end of 1946. But these deserve mention: *Mr. Roberts,* by Thomas Heggen, about the non-combatant navy; *Ward Twenty,* by James Warner Bellah, about war cripples; *Horned Pigeon,* by George Millar, a prisoner of war escapes; G. B. Stern's *The Reasonable Shores,* a British family during the war; *Day of the Conquerors,* by Niven Busch, V-J Day; *Of Many Men,* by James Aldridge, an attempt at a panorama of World War II.

The war gave rise to some impressive first novels, such as: Basil Heatter's *The Dim View,* a PT skipper; Robert Lowry's *Casualty,* full of hatred of war and officers; Gore Vidal's *Williwaw,* set in the Aleutians; Wesley Towner's *The Liberators,* occupying Germany. Other first novels, probably better than the war ones, included: Raoul C. Faure's *The Spear in the Sand,* a man in complete solitude; Morrison Wood's *The Devil Is a Lonely Man,* the ruthless Hero; Arkady Leokum's *Please Send Me, Absolutely Free,* and Fieldon Farrington's *The Big Noise,* both attacks on advertising, like *The Hucksters,* mentioned above; Ann Petry's *The Street,* about Harlem; Robert Emmett Higginbotham's *Wine for My Brothers,* an allegory of the fight for freedom, set on a tanker during the war.

Carson McCullers' *The Member of the Wedding* was about a twelve-year-old girl. P. G. Wodehouse resumed publishing with *Joy in the Morning.* Jerome Weidman satirized the OWI in *Too Early to Tell.* Elizabeth Metzger Howard's *Before the Sun Goes Down* won a big prize. T. H. White's *Mistress Masham's Repose* was about Lilliputians. Francis Steegmuller satirized the church in *States of Grace.* Eccentric English people appeared in Nancy Mitford's *Pursuit of Love.*

Only in short-story volumes could 1946 claim achievement superior to other years. The influence of *The New Yorker* magazine, strong for many years, was felt particularly this year, in such books as: Irwin Shaw's *Act of Faith,* war stories; Emily Hahn's *Hong Kong Holiday;* during Japanese occupation; John McNulty's *Third Avenue, New York,* barroom stories; Elizabeth Parsons' *An Afternoon,* about young, immature women; Edward Newhouse's *The Iron Chain,* again about war; Victoria Lincoln's *The Wind at My Back,* about adolescence and marriage; Francis Steegmuller's *French Follies and Other Stories.* Not all the stories in all these books first appeared in *The New Yorker,* but they all showed the firm writing and the subtilized emotion that magazine demanded. *The Pleasure Was Mine,* by James Reid Parker, and *Here's O'Hara,* by John O'Hara, might also be added to that list.

Memoirs of Hecate County, by Edmund Wilson, was charged with obscenity in many parts of the country. Elizabeth Bowen's *Ivy Gripped the Steps* dealt with the English in war time. Jesse Stuart's *Foretaste of Glory* showed a small town approaching Judgment Day. George and Helen Papashvily told *Yes and No Stories,* folk tales from the Russian Georgia. Paul Green's *Salvation on a String* dealt with the country around Raleigh, North Carolina, while John Bennett's *The Doctor to the Dead* had to do with Charleston, South Carolina. Anna Kavan's *Asylum Piece* described mental break-up. Kay Boyle published *Thirty Stories,* all kinds. Paul Gallico's *Confessions of a Story Writer* showed his journalistic skill. Roald Dahl's *Over to You* was about fighter pilots. August Derleth anthologized ghost stories in *Who Knocked?* James T. Farrell's *When Boyhood Dreams Come True* disappointed his admirers. An anthology of science-fiction was edited by Raymond J. Healy and J. Francis McComas, *Adventures in Time and Space.* In *American Legend,* Robert and Dorothy van Gelder collected short stories and selections from novels to show the spirit of America.

History. No peaks of achievement marked 1946 in history. A picture book was perhaps as remarkable as any: *The New World: the First Pictorial Report on America,* paintings made by John White and Jacques Le Moyne in the sixteenth century, edited by Stefan Lorant. Volume iii of *Album of American History,* edited by James Truslow Adams, covered the years 1853–1893, also in pictures. Volumes i and ii, 1606–1865, of *The Economic Mind in American Civilization,* by Joseph Dorfman, were thorough and detached. Clifford Dowdey's *Experiment in Rebellion* provided a Southern history of the Civil War, while Alfred Hoyt Bill's *The Beleaguered City* concentrated on Richmond between 1861 and 1865. Neil H. Swanson likewise described Baltimore during the War of 1812 in *The Perilous Fight.* No war, but political and social struggle marked Wayne Andrews' *Battle for Chicago.* Frank C. Hibben went back into pre-history to find *The Lost Americans.*

American regional history continued in such books as Walter Havighurst's *Land of Promise: the Story of the Northwest Territory,* or Alvin F. Harlow's *Steelways of New England.* Water provided the center for most regional histories, however; from the *Rivers of America* series: volume i of *The Tennessee,* by Donald Davidson; The *Housatonic: Puritan River,* by Chard Powers Smith; *River of the Sun,* the Cila, by Ross Calvin; *The Colorado,* by Frank Waters; and in the *American Lakes* series: W. Adolphe Roberts' *Lake Pontchartrain,* and Frederick F. Van de Water's *Lake Champlain and Lake George.* Water also appeared in Donald W. Mitchell's *History of the Modern American Navy,* since 1883.

Books about World War II multiplied. A cartoon

history by David Low, with text by Quincy Howe, was *Years of Wrath 1931–1945*. Walter Phelps Hall attempted interpretation of the war in *Iron out of Calvary*. The effects of the atom bomb were vividly described in John Hersey's *Hiroshima*. Gilbert Cant explained *The Great Pacific Victory*, and Fletcher Pratt's *Night Work* was about naval task force 39. Walter Millis' *The Last Phase* considered the war in Europe from D-day to VE-day. Ross Munro, in *Gauntlet to Overlord*, told of Canada's military effort. Charles A. Beard disapproved of *American Foreign Policy in the Making, 1932–1940*. Justice Robert H. Jackson's opening statement at the Nuremberg trial was published as *The Case against the Nazi War Criminals*.

In European history appeared: *The Great Retreat*, by Nicholas S. Timasheff, about Russia since 1914; *Imperial Commonwealth*, by Lord Elton, about the British Empire; *Suitors and Suppliants*, by Stephen Bonsal, behind the scenes at Versailles in 1919; *The Weimar Republic*, by Godfrey Schecle; *The Congress of Vienna*, by Harold Nicolson, discussing Allied unity between 1812 and 1822.

Other noteworthy histories were: *Botha, Smuts, and South Africa*, by Basil Williams; *The Discovery of Canada*, by Lawrence J. Burpee; and *Women as Force in History*, by Mary R. Beard.

Poetry. Poets of large reputation did not publish in 1946, though plenty of poetry was published. A few newcomers attracted attention: Alice Monks Mears' *Brief Enterprise* won a prize; Howard Moss' *The Wound and the Weather* and Lysander Kemp's *The Northern Stranger* won praise. Robert Lowell, of a famous family, mixed traditional religion and fresh diction in *Lord Weary's Castle*, his second volume. Thomas Merton's second volume, *A Man in the Divided Sea*, likewise was Roman Catholic in inspiration. The war as topic and influence appeared in H.D.'s *The Flowering of the Rod;* in John Waller's *Crusade;* in Hermann Hagedorn's *The Bomb that Fell on America;* in Robert Tallman's *Doomsday's Cue*. T. W. Ramsey's *Fire and Ice* was philosophical. Robert P. Tristram Coffin's *People Behave Like Ballads* was largely narrative. Elizabeth Bishop's *North & South* won a prize. Kenneth Porter's *No Rain from These Clouds* included his work since 1927. Genevieve Taggard published *Slow Music*, while Leonora Speyer published *Slow Wall*. Phyllis McGinley's *Stones from a Glass House* was light, and Frances Frost's *Mid-Century* was not too heavy. Other works that drew attention were: Eve Merriam's *Family Circle;* John Buxton's *Atropos;* Nancy Bruff's *My Talon in Your Heart;* Ruth Pitter's *The Bridge;* Oliver St. John Gogarty's *Perennial;* Josephine Miles' *Local Measures;* Frank Kendon's *The Time Piece;* Norman Rosten's *The Big Road;* Roy Helton's *Come Back to Earth;* Brewster Ghiselin's *Against the Circle;* Margaret Stavely's *Doors to a Narrow House*. Alfred Noyes edited *The Golden Book of Catholic Poetry*.

BENFIELD PRESSEY.

LIVING COSTS AND STANDARDS IN 1946. For the average consumer, 1946, like 1945, was a year more of promise than of fulfillment. Incomes were high as the average worker's take-home pay, which had dropped rather sharply after V-J Day, mounted slowly and finally surpassed July 1945 levels. Sharply rising prices during the latter part of the year, however, more than offset advances in wages, so that the worker found it more and more difficult to maintain his previous level of living. Shortages of goods—both durable items not available during the war and nondurable goods such as foods and clothing—continued to be of paramount importance. The average family was less aware that the economy was operating at a full-employment level than that meat was not available in butcher shops and that a 12 or 18 months waiting period was required to get an automobile.

By the third quarter of 1946, production of many goods was at an all-time high. The Federal Reserve Board's index of industrial production reached a peacetime peak. Production of washing machines, vacuum cleaners, electric ranges, gas ranges, radios, and electric irons exceeded 1941 rates, although output of some goods such as sewing machines and passenger automobiles still lagged.

The anomaly of high-level output coincident with inadequate supplies which characterized 1946 arose from a number of causes. In the first place, demand, buoyed by high incomes, a loosening of regulations on consumer credit, and the nonavailability of hard goods during the war was at extraordinary levels, in many cases exceeding the capacity of the industrial plant. Further, output was not as great as might have been anticipated from the level of employment because of production bottlenecks. Thus, shortages of steel, lead, copper, and other industrial raw materials made it difficult for plants to operate at high rates over long periods and materially raised the cost of those goods which were produced.

Consumer expenditures in terms both of dollar value and physical volume rose substantially in 1946 over the high 1945 level. By the third quarter of 1946, consumer expenditures were running at an annual rate of more than 125 billion dollars, but change was taking place in the purchase pattern. As more durable goods became available, purchases of these types of equipment rose sharply to nearly double the 1943–44 rates. Purchases of nondurable goods, such as foods and textiles, apparently had reached a plateau by late 1946, and there was some question as to whether sales of soft goods would continue at high levels when hard goods became more readily available.

The rise in consumer expenditures was backed by a substantial rise in workers' take-home pay from the level of late 1945. Thus, by October 1946 average gross weekly earnings in manufacturing industries were $45.83, almost $5 above a year earlier. This rise represented the net effect of a sharp increase in hourly earnings (which averaged $1.13 in October 1946) and a decline in the work week. Despite this substantial rise, however, earnings in 1946 still had not regained the January 1945 peak. Further, the purchasing power of this increased take-home pay was reduced by sharp advances in prices, particularly after the serious weakening of price controls in midyear.

In June 1946 the Congress passed and sent to the President a sharply amended price control extension act which was vetoed on the grounds that it "legalized inflation." It was not until late July that Congress passed a new version of the price control act which met with the President's approval. This version differed sharply from that in effect prior to the end of June. Authority for price control over farm products was withdrawn from the OPA Administrator and delegated to the Secretary of Agriculture. A Price Decontrol Board was established as a final authority over prices of both agricultural and nonagricultural commodities. A number of important materials, including grain, petroleum and products, tobacco and products, and dairy products and meats, were temporarily decontrolled, subject to action by the Decontrol

Board. Meats were returned to price control late in August, but a serious shortage developed and price controls were removed again in October. With this "breaking of the line" on meats, decontrol for other commodities followed rapidly. By the end of October almost all foodstuffs were free from price control and by mid-November only rice, sugar, and rents remained under OPA authority. Sugar, the only commodity still under rationing, was expected to be in short supply through 1947.

The rise in consumers' prices in 1946 was led by foods, which advanced about 31 percent, followed by housefurnishings (up 19 percent) and clothing (18 percent). More moderate advances were recorded for miscellaneous goods and services (about 9 percent) and fuel, electricity and ice (5 percent). As in immediately preceding years, rents were generally unchanged.

Prices paid by consumers advanced in each quarter of 1946, although the rate of advance varied sharply in different periods. Prices rose less than ½ of 1 percent a month during the first half of 1946, while OPA controls were still effective However, during the price control "holiday" in July and the period of weakened price controls which followed, average consumers' prices rose nearly 10 percent in three months. In part, the July increases reflected price adjustments previously allowed by OPA, particularly for manufactured goods. Advances continued at a somewhat slower rate through the rest of the year.

The most rapid advance in food prices occurred with the lapse of OPA control at the end of June Sharpest advances were reported for meats and butter which had been in short supplies in preceding months. Substantial advances also occurred for sugar, coffee, and tea, as foreign producers raised their prices for these imported foodstuffs.

Despite apparent shortages of many foods relative to demand, the average family ate very well in 1946. On the average, per capita consumption of foods was more than 6 percent higher than consumption in the relatively prosperous year of 1941. Per capita consumption of fluid milk was more than 20 percent higher and consumers ate more eggs, canned vegetables, cheese, ice cream, fresh vegetables, and coffee than in 1941. Even consumption of meats was higher despite the apparently severe shortages in 1946. The high consumption of fluid milk, however, impinged upon supplies for butter making, so that consumption of butter was only about 60 percent of the 1941 rate. Other foods for which consumption was less than before the war included refined sugar, fresh and canned fruits, and wheat flour.

In a number of cases shortages of foods were local rather than national and reflected transportation difficulties. Thus, during the summer, refined sugar generally was unavailable in eastern states, although western retailers had ample supplies on their shelves. Similarly, distribution of the very high output of corn syrup was hampered by a lack of box cars.

Prices for clothing, after food the most important group of commodities in the consumer's budget, continued to advance at a rate of about 1 percent a month during the year. Production of women's clothing generally exceeded all previous peaks, but output of men's clothing continued to be hampered by labor and materials shortages. By the end of the year, many types of clothing of prewar qualities again were generally available, but at prices far higher than prewar. High rates of textile production led to belief in the trade that the boom was over and that sharp breaks were imminent. The average consumer saw little evidence on retailers' shelves of over-production of desirable goods. There were a few bright spots, however, Nylon stockings almost unavailable in 1945, were quite plentiful by late 1946. Men's wool suits were available in increasing numbers in the fall, but demand was still so high that retailers were unable to keep large selections on hand.

The most serious shortage in the apparel field at the end of 1946 was in shoes. This shortage reflected in part the small supply of leather arising from the meat shortage of earlier months when the number of animals moving through regular slaughtering channels was sharply reduced. It was generally anticipated that shoes of desirable quality would continue in short supply well into 1947. Retail prices of shoes, particularly in the lower brackets, moved up sharply with the elimination of price control in the latter part of the year.

As in previous years, residential rents, still tightly controlled, were generally stable during the year. Sales prices of houses, however, continued to advance sharply. There were reports late in the year that the "bloom" was off the market for older houses, as the end of the postwar migration eliminated the "frantic fringe" of house buyers. Those persons still in the market apparently were becoming more selective and less willing to pay a large premium for immediate occupancy. Thus, some realtors reported that it required two and three months instead of two weeks to sell the average house.

The governmental housing program, which had concentrated on providing homes for veterans, had not proceeded as rapidly as had been hoped. While the number of new homes started moved up sharply in 1946, the number of completed homes was low. In mid-December many of the restrictions on construction were dropped.

Shortages of materials such as iron pipe and cast iron plumbing fixtures extended the average time of construction from a normal 2 to 4 months to 6 and 7 months or more. Because of shortages it also was necessary for builders to secure materials from sources other than those normally used, substantially raising the cost of the average house completed in 1946. The low rate of house completion and the small number of rental dwellings started were reflected in the rental market Approximately three-quarters of the residential dwellings started under the government program were for sale rather than rent. Desirable house or apartments generally were not available for rental in most cities. Most large housing projects had long waiting lists which they did not expect to be able to service for many months, and many discontinued the practice of adding names to waiting lists.

With the elimination of most price controls, agitation for the elimination or moderation of rent controls increased. Realtor groups generally asked either the elimination of most rent controls or a 10 to 15 percent increase in rents, pointing to the sharp rise in prices of most goods at a time when rents had remained virtually unchanged. Government control agencies, however, continued to refuse requests for a blanket increase in rents, pointing out that realtors' profits had risen over 1939 because of the elimination of vacancy expenses, the reduction of repairs and alterations, and effective declines in the quality of service.

In an acceleration of the trend of earlier years, rates for gas and electricity dropped 2 percent during 1946. Prices of coal and petroleum fuels, however, moved up during the year. Coal prices

rose about 7 percent in June to cover higher wages granted miners following a 59-day strike. A second coal strike late in the year lowered stockpiles and hard-fuel supplies promised to be as tight during the winter of 1946–1947 as during the war.

Housefurnishing costs to the average consumer increased 19 percent during the year with higher prices for both textile housefurnishings and durable goods. Prewar qualities of textile housefurnishings such as sheets, pillowcases, draperies and upholstery fabrics were available only in the higher price lines. Durable goods, such as refrigerators, washing machines, vacuum cleaners and ranges, generally were available by the end of the year, although not always for immediate delivery. By October, the supply of table radios and electric irons was so large that clearance sales were started by retail organizations throughout the country, particularly for models produced by new or unknown organizations. Prices for standard brand radios and irons remained stable. Large console radios were available in increasing quantities. Short supplies of lumber limited the number of cabinets which could be made, so that larger radios still were not being produced in quantities sufficient to meet demand.

Consumers' services continued to move up in cost during the year at about the same rate as in earlier periods. Following the elimination of price control, many laundries raised prices to cover higher costs. Haircuts rose to a dollar in some places and cost of medical care continued to inch forward.

Automobiles again were available to civilians in 1946 but in quantities far smaller than demand. Retail prices of new automobiles were some 50 percent higher than in 1939, but, even with the increased price, the average individual who wanted an automobile was forced to make a deposit and take his place far down on a waiting list. With the elimination of price control, market prices of used automobiles jumped sharply, rising in some cases to more than the established retail price set by manufacturers for new cars.

At the end of the year more and more organizations predicted the approach of a business downturn. In part, this reflected substantial weakness in the stock market which had fallen sharply during the summer months and failed to recover by the end of the year. In part, it reflected fears rising from growing stocks of many goods which could become excessive if demand were to decline and, in part, it represented a recognition of the fact that readjustments of the price structure were inevitable. The average business forecaster predicted a downturn beginning possibly in the second part of 1947. It was not generally anticipated that the downturn would be severe, but it was expected that once begun it would last at least until 1948. The President's Council of Economic Advisers, however, in a year-end report anticipated continuing business prosperity in 1947 on the basis of existing favorable factors.

In the late months of 1946, however, there was no evidence that the downturn had begun. Retail sales continued well above the levels of the year earlier. Christmas buying was at an all-time high as many families bought radios, electric appliances and good quality clothing which had not been available during the war period.

Factors that indicated that a decline might come were the sharp rises during the summer in food costs which had undoubtedly reduced funds for durable goods and required a general tightening of the average family budget. There also was little doubt that consumers were becoming more selective. There was, however no indication of refusal on the part of consumers to buy high quality merchandise at prices far in excess of prewar levels.

GALEN B. PRICE.

LUTHERAN CHURCH. The Lutheran Church in America continued to show a steady growth. Membership totals in the United States and Canada were: baptized members, 5,875,409; confirmed members, 4,046,444; organized congregations, 19,405; ordained ministers, 13,953. Total receipts during 1944 were $104,246,791, of which $73,357,078 was for local expense and $30,889,713 for benevolences. A slight increase was recorded in the enrollment of Sunday and weekday schools, checking a downward trend begun in 1940.

All Lutheran bodies are included in the above total, some of them with their roots going back into the State churches of the mother countries in Europe. They have continued to experience a desire to work together in closer fellowship looking forward to the possibility of eventual unity. Eight of the bodies cooperating in the National Lutheran Council, comprising about two thirds of the Lutherans of America, continued their cooperative activity under the Council's revised constitution, through which they have opened up larger channels of work in the fields of American missions, welfare, student work, and public relations. Noteworthy was the new development of the work resulting from the end of the war.

A three-way program to discharged men and women was inaugurated:

(1) The ministry of 85 clergy to hospitalized cases in the Veterans' Administration care. (2) The increased personnel and developed program for serving the more than 100,000 Lutheran students on university and college campuses, the larger part being returned veterans. (3) The service to families and individuals in housing areas through a special church program and lay workers arrangement.

The Lutheran Churches in America have raised more than 20 million dollars for reconstruction and relief in the war-torn countries. The spread of famine, the opening of countries to relief work and the need for communication has led to sending several commissioners to work in Lutheran reconstruction projects: Dr. S. C. Michelfelder; Dr. Clifford A. Nelson; Rev. Herman Keiter; Rev. Owen Norem; Rev. Carl Schaffnit. The last two are attached to CRALOG. Early in 1945, the Lutheran World Relief, Inc., was organized to facilitate shipment of supplies, food and clothing, to needy people in the world. More than 2,843,000 pounds of goods have been shipped. All Lutheran bodies have participated in this project.

The reorganization of the Lutheran World Federation, formerly known as the Lutheran World Convention, was completed at Uppsala, Sweden, July, 1946. Dr. S. C. Michelfelder was called as the executive secretary to this organization to direct the relief program and arrange for the first general conference in Lund, Sweden, in June, 1947. Dr. Daniel Nelson is the representative in the Orient with headquarters in China, where an expanded program is now being planned.

In the Synodical Conference, which makes up the remaining third of American Lutheranism, the Missouri Synod alone collected over $5,500,000 as a special Peace Thank Offering in 1945, to be used for reconstruction in devastated areas, an educational building program and home missions. The Lutheran Hour, a worldwide religious broadcast featuring Dr. Walter A. Maier, professor at Con-

cordia Theological Seminary, St. Louis, Missouri, reached a new high during 1945 in the number of broadcasting stations employed and nations served. Seven hundred and eighteen broadcasting stations under 23 different flags carried the Lutheran Hour, resulting in mail from 59 different countries. One hundred ninety-seven theological students entered the ministry of the Lutheran Church, Missouri Synod, in 1945.

LUXEMBURG. A grand duchy in western Europe; under occupation by German armed forces from May 10, 1940, until liberated by Allied armed forces late in 1944. Area: 999 square miles. Population (Jan. 1, 1940, estimate): 301,000. Capital: Luxemburg. Agriculture was the occupation of 32 percent of the people. Oats and potatoes were the chief crops. Livestock (1939): 154,727 pigs, 107,417 cattle, 18,017 horses, 8,465 sheep, and 3,107 goats. The mining and metallurgical industries are the most important. In 1939 the output of pig-iron and ferro-alloys totaled 1,776,000 metric tons, steel ingots and castings 1,824,000 metric tons. In 1938 there were 35 blast furnaces and 7 steel works in operation. The budget for 1946 indicated revenue of 2,219,570 francs and expenditure of 3,666,597 francs. Public debt (Jan. 1, 1945): 807,730,302 francs.

Events. The Cabinet of the Grand Duchy continued to be headed during 1946 by Prime Minister Pierre Dupong of the Christian Socialist Party. Joseph Bech of the same party, who had served as Prime Minister from 1926 to 1937, completed his twentieth year as Foreign Minister and headed the Luxemburg delegation to the United Nations General Assembly. Guill Konsbruck, Minister of Economic Affairs, was replaced by Lambat Schaus, both of the Christian Socialists. Upon the death of Charles Marx, Communist Minister of Social Welfare, he was replaced by Dominique Urbany, also a Communist. Early in August Albert Winghert, a Socialist schoolmaster who had been a resistance leader under the Nazis, was arrested along with Lieuts. Krieps and Winter for participation in an alleged plot to overthrow the Government, motivated by dissatisfaction with the Cabinet's tardiness in eliminating pro-Nazis from public office. Dupong dismissed the episode as "a comic opera revolution."

On November 1 Hugues le Gallais, Minister in Washington, joined his two diplomatic colleagues in asking the Big Four that Luxemburg, Belgium and the Netherlands be represented "from the beginning" in discussions of the German peace treaty. France was sympathetic, but Great Britain, the United States and the U.S.S.R. were noncommittal. Following the example of her northern neighbors, Luxemburg on November 8 submitted to the Council of Foreign Ministers a claim for a narrow strip of German territory, comprising some 235 square miles. These issues were still unresolved at the close of the year.

Meanwhile, in mid-October 75 delegates from 37 organizations in 14 countries met in Luxemburg in the first International Conference of Federalists. The British delegates included three members of Parliament. American representatives included Georgia Lloyd, director of the Campaign for World Government; Tom O. Griessemer, director of World Federalists, who was elected temporary international secretary; Emery Reeves; and Max Habicht, Swiss-American international lawyer. At the close of a three-day session, the delegates unanimously adopted the following resolution (October 16):

"Recognizing that all peoples in all the lands desire peace, we Federalists from various parts of the world, meeting in Luxemburg in October, 1946, have decided to and do now bring into being an International Association uniting all organizations which seek the creation of a World Federal Government. Many of us advocate, as a step towards this end, the formation of Regional Federal Unions, and in particular the United States of Europe. The new association shall be known as the 'Movement for World Federal Government'; its permanent seat shall be on the European Continent and it shall have branches in every country. Conscious of the increasing perils which threaten mankind and of the functional incompetence of the Sovereign State to solve our difficulties, we appeal to men and women everywhere to join with us in our great campaign for the creation of a World Federal Government embracing all the peoples of the globe."

FREDERICK L. SCHUMAN.

MACHINE BUILDING. As was to be expected, the trend in machine design and building and in all mechanisms which play a part in modern production, has been toward reducing the amount of hand labor necessary in quantity production of consumer goods. This trend extends from large machine tools to gages and other instruments used in the inspection of finished work.

Electronic control of speeds in machine tools has become fairly common practice. Utilizing some of the discoveries made in the radio field, and using similar electronic tubes, motor speeds can now be varied as desired without the use of gearing or other mechanical devices for controlling the various speeds. The new method is much more simple and efficient and has wider applications than any other method we have known to date. Similarly electronics are now being used for the remote control of small motors which form part of the power plant of machines of various kinds.

Many new machine tools are being placed on the market, most of which have been developed to secure greater efficiency than those of pre-war production. There is less trend toward what was known as streamlined design. This was carried to such extremes in some cases that some grinding machines looked more like a console radio for the parlor than a production machine tool for the shop. While these designs were more attractive to the eye than some of the older machines, in too many cases, the smooth appearance was secured at the expense of accessibility of some of the working parts, both for inspection and repair.

This was particularly true of the placing of electric motors and their control panels so as not to mar the smooth exterior, which was the aim of too many designers. This led to some of the large users of machine tools, notably the large automobile manufacturers, making specifications of their own regarding the placing of this equipment where it was more accessible than in some of the streamlined machines. This has made all the more desirable the increasing use of electronic controls previously mentioned.

Among the developments in the machine tool line are new machines for producing bevel gears by the use of large rotary cutters in an entirely new manner and at surprising speeds, by the Gleason Works. This company has also developed a new type of bevel gear tooth known as the "coniflex" which gives much more latitude, or flexibility in the mounting of mating gears. This provides a localized tooth bearing which can be shifted appreciably without dangerous concentration of load at the ends of the teeth.

Builders of Fellows gear-shaping machines have also developed their type of gear-cutting machine in order to secure much larger production where gears are made in sufficient quantities. This is a marked departure from former practice. Now four,

six, or eight stacks of gears can be located around a central tool head so that all the gears are cut at the same setting. They also have a new and greatly improved machine for testing the accuracy of gear teeth as to the spacing, tooth form, and size.

The use of both air and hydraulics to control tool movement has also been extended to other fields. Although several types of equipment for this purpose were built during the war, in order to make possible the use of standard machines, instead of the highly special types with automatic control for various movements, several builders have now adopted these methods for control in turning contours on their lathes.

Another development along somewhat similar lines is the use of the electric eye as a means of guiding tools along desired patterns. This is being used both for special machining operations and for guiding a cutting torch so as to produce accurate shapes in metal being cut in this manner.

The Bullard Company has extended the use of their Man-Au-Trol device, originally designed for boring mills, to radial and other drilling and boring machines, in order to automatically locate holes in any piece of work without the use of jigs, fixtures, or measurements of any kind. Once the desired pattern of holes is set up on the control board, the positioning of work, or of the tool, is done automatically. After the completion of the first hole, the location of the second hole is found automatically without measurement by an operator.

Using this same controlling device they build a lathe for turning shafting of any kind, such as shafts for electric motor armatures, with each diameter of its proper size and length. Both the diameters and the location of the collars or shoulders, are automatically controlled by the same device. These lathes can be built with two or more spindles so that a similar shaft can be turned on each spindle at the same time, thus duplicating the work and increasing the output with each added spindle. All these devices make it possible to utilize comparatively untrained workers, as the operator simply loads and unloads the work from the machine. It must be remembered, however, that all these machines need supervision by skilled workers, both for setting them up for new work and for maintenance should any part of the mechanisms wear or get out of proper adjustment.

Builders of the well known Gray planer have made a startling innovation in planer design by interposing strips of plastic material between the planer table and its bed. This plastic makes the bearing surface between the two cast iron surfaces and takes all the load. This was adopted only after long and painstaking tests which indicated a better wearing condition and is believed to add to the accuracy of the work over a long period.

Another new design for a planer table includes the use of an hydraulic "hold-down" by oil pressure on the upper side of the table or slide. By maintaining a constant pressure on top of the guide this makes possible the use of higher pressures in the lubricating system without the danger of lifting the table from its ways. This has in the past necessitated the use of lower lubricating pressure than might have been used otherwise. One designer suggests that it may be possible to so control the pressures that the hold-down and the lubrication pressures may balance and permit the table to float on an oil film. To secure this condition it would be necessary to vary the pressures with the load on the table. The same method of lubricating and holding the table could be applied to any form of reciprocating mechanism.

The Monarch Company adhere to their practice of flame hardening the ways of their lathe beds and finishing by grinding. This of course eliminates scraping, which is a much discussed point. The increasing use of marble and granite surface-plates indicates that they are satisfactory and gives added weight to the agrument that scraping is not necessary with accurate machining. Many still "spot" bearing surfaces simulate scraping, to satisfy those who cling to the idea that it is necessary to a good bearing.

A small but useful device for removing or collecting particles of steel which may come from wear of parts is finding favor. It is simply a permanent magnet set into the drain plug of any gear case or transmission, and collects stray particles of any magnetic material that may be in to oil or elsewhere. These are removed whenever the plug is taken out for draining the gear case.

Details of machine construction, such as the clutches used in various mechanisms are receiving attention. A centrifugal mercury clutch retards the engagement long enough to permit the motor to reach full speed before any load is applied. This limits the torque so as to prevent overloading the motor and enables it to start the load easily.

Methods of balancing rapidly rotating bodies have also been improved. A rather simple method is now being used on rotating bodies in which the load may be unbalanced at the start. This automatically supplies the proper amount of counterweight opposite the heavy portions, and restores balance. This is being applied to a spin-drying washing machine and to other devices in shops where balance is even more important.

FRED H. COLVIN.

MACY FOUNDATION. Established in 1930 by the late Mrs. Kate Macy Ladd in honor of her father, Josiah Macy, Jr., the Foundation reported total expenditures for the year ending Dec. 31, 1945, at $406,746; total grants paid $226,000. Drafts are not permitted upon the endownment, which has a ledger value of $6,541,175. Emphasis is placed on special problems in medicine which require for their solution studies and efforts in correlated fields as well, such as biology and the social sciences. President: Dr. Willard C. Rappleye. Medical Director and Executive Secretary: Dr. Frank Fremont-Smith. Headquarters: 565 Park Avenue, New York 21, N.Y.

MADAGASCAR. A large island, belonging to France, located off the southeastern coast of Africa. Including dependencies, it has an area of 241,094 square miles and a population (1936) of 3,797,936, of which 25,255 were French.

Population. A number of different peoples or tribes comprise the native population of Madagascar. The most intelligent and numerous are the Hova, who speak a language that is related to dialects of Malaya and Oceania, and which serves more or less as a *lingua franca* for much of the island. In addition to the various native peoples, there are communities of Indians, Chinese, and Arabs, many of whom are engaged in the retail trade.

Madagascar has for several decades been the object of intense Christian missionary activity, particularly by Protestants. There are now nearly 2,000 Catholic and about 3,500 Protestant churches, in addition to 75 mosques. Most of the Hova and the other tribes in the central districts have embraced Christianity, while the outlying tribes are still largely pagan. Education among the

natives is also much further advanced than almost anywhere else in Africa. In 1939 there were 1,011 government schools with 126,947 pupils, and 706 private schools with 94,232 pupils. There are also higher institutions for advanced training in medicine, administration, agriculture, and the like.

Government. The colony now comprises not only Madagascar but the formerly separate colonies of Diego-Suarez, the island of Nossi-Bé, the island of Ste. Marie, and the Comoro Islands. The latter are strategically located in the Mozambique Channel about halfway between Madagascar and the African mainland. The Governor-General is assisted by a Consultative Council of Administration and until recently by an Economic and Financial Delegation comprising a French section and a native section. Both the French and native sections consisted almost entirely of elected delegates, who ordinarily met once a year to discuss the budget and other economic and financial questions. In 1945 a decree was signed creating a Representative Council to consist of sixty members: twenty elected by the French citizens in Madagascar, twenty natives elected by local bodies, and twenty appointed by the Governor-General (eight French and eight natives chosen to represent different economic interests, plus two French and two natives to represent labor unions). The members of the Council were to serve four-year terms upon election by a restricted franchise. They were to constitute a deliberative body whose decisions were binding. The Council thus had more power than the Economic and Financial Delegation had enjoyed. A large part of the lower civil and military offices are filled by natives.

Events. The nationalist agitation that was such a marked phenomenon in certain other parts of the French empire—notably North Africa and Indochina—made itself felt in Madagascar. Paris reported that the widespread independence movement on the island was responsible for riotous anti-French demonstrations during the spring, when Raoul de Coppet arrived to take over the office of governor-general.

On July 19 Léon Cayla, governor-general under the Vichy régime, was sentenced by the High Court of Justice to five years in prison, a 10,000 franc fine and "national unworthiness" for life because of the resistance which he had put up against British occupation of the island in 1942. Two days later it was announced that the British military mission in Madagascar had been withdrawn.

Economy. Madagascar is one of the largest and most valuable of the French colonial possessions. Soil and climatic conditions are favorable for the production of tropical and subtropical crops over wide areas. The principal crops, together with the area under cultivation in 1938, were: rice, 1,319,250 acres; manioc, 558,100 acres; maize, 216,162 acres; sweet potatoes, 296,400 acres; coffee, 230,080 acres; vanilla, 55,340 acres; and sugar cane, 43,401 acres. Forests are extensive and valuable. In 1936 there were 6,000,000 cattle in the colony. The beginnings of modern industry may be observed here and there. Graphite is the principal mineral product of the island, 14,400 tons being mined in 1938.

During the last prewar year (1938) Madagascar's imports were valued at 602,710,000 francs and her exports at 819,397,000 francs. France supplied three-fourths of the imports and took four-fifths of the exports. There is thus a considerable volume of shipping that calls at the island's ports, of which the most important is Tamatave. The total railway mileage exceeds 500 miles. Before the war Madagascar was connected with France by a weekly air service.

ROBERT GALE WOOLBERT.

MAGAZINES. The first full peacetime year of 1946 found magazine publishers enjoying ration-free use of paper, though the demand far exceeded the supply. The industry was generally flourishing, but here and there appeared evidence that the war-stimulated boom in reading was nearing its peak, or in some cases was almost past. The public demonstrated that it could get its fill of some magazines, and unsold copies were dumped back to the publishers from the newsstands. A few oldsters seemed shaky, and more than one new venture had suspended by year's end. Production problems, too, seemed no nearer solution. Paper was still scarce; manufacturing delays were frequent (no less than two large new magazine suspensions were blamed on inability of printers to turn out magazines on schedule); and in general the industry worked harder than ever to maintain the gains it had made and was continuing to make.

One of the most serious problems which the industry as a whole had to face was that of bounding production costs. With the large wage increases granted printers (wages in the printing industry averaged second highest among those in all the industries reported on by the National Industrial Conference Board in July), costs rose to a point where they could no longer be completely absorbed by the publishers and had to be passed on to readers as well as advertisers. This came in the form of higher subscription and single copy prices for such magazines as *Ladies' Home Journal* and *McCall's*, which increased their single copy prices from 15¢ to 25¢; *Time*, which jumped from 15¢ to 20¢ a copy; *Life*, from 10¢ to 15¢ a copy (with annual subscription rates raised from $4.50 to $5.50); *Mademoiselle* from 25¢ to 35¢; *Saturday Evening Post* subscription price from $4.00 to $5.00. Increases were also recorded for *The New Republic, Parents', Country Gentleman, Newsweek, Yachting*, and *Woman's Home Companion*, with every indication that many other magazines would follow the trend.

In a further effort to meet advancing costs, a number of magazines increased their advertising rates—some along with proportionate circulation guarantees. Among these were *Newsweek, Everywoman's, Saturday Review of Literature, Today's Woman, The New Yorker, Seventeen, Scholastic, Harper's, True, Journal of the National Education Association*. Advertising in magazines continued at an all-time high, reaching the astounding total of $375,000,000, compared with $305,000,000 in 1945. In October the *Ladies' Home Journal* contained the largest amount of advertising ever published in a single issue of any magazine, a total of $2,146,746.20, and their figures for November and December were only $50,000 to $100,000 short of this.

At the year's end circulation of some magazines was mounting, with *Seventeen's* guarantee up to 750,000 and the million mark in sight; *Country Gentleman* up to 2,220,000; *Ebony*, the Negro picture magazine which started in 1945 with 75,000, was up to 300,000; the June print order of the Macfadden women's group advanced 32 percent over June, 1945; and the *Ladies' Home Journal*, with a circulation of 4,110,000, reached the highest figure for any monthly magazine carrying advertising. *Life* led the weeklies with 5,200,000 net paid circulation. Most magazines removed their wartime subscription restrictions. The quality

group, too, shared the rise, with the *Atlantic Monthly* and the *Saturday Review of Literature* reaching the highest circulations in their histories. Many magazines were reported to be readying large-scale circulation campaigns in order to build up a backlog of subscriptions to offset a possible newsstand slump in 1947.

Despite the doubtful reception accorded some new magazines on the newsstands, as well as increased manufacturing costs and slow production, dozens of new magazines were launched during 1946. These were largely of three types—travel magazines, publications in special fields, and digest periodicals. Curtis Publishing Company's new travel magazine, *Holiday*, was the most ambitious of the new ventures. Preceded by one of the largest advertising campaigns in magazine history, *Holiday* made its début in February. The first issue was sold out—a lavish, expensive magazine selling at 50¢ a single copy. The photography was unusually good, and the advertising and text so elaborately laid out that there was some difficulty in distinguishing between them. After the first flush there was a slump in sales, but beginning again with the third issue, sales rose to a point where the advertising rates have been advanced as of March, 1947, based upon a circulation guarantee of 400,000. Recently a change in staff and editor took place, and while the magazine is still profuse in its use of color, the format is less spectacular and the magazine is generally more satisfying and readable. The present editors plan to work each issue around a single locale or resort, lending unity to the editorial content.

During the past year a number of other travel magazines entered the field. *Travel and Camera*, a 50¢ publication replacing the old *U.S. Quarterly Camera*, came out in the spring as a direct competitor of *Holiday*. *Let's Go*, a quarterly containing articles and photographs, started in May. This new travel quarterly is sold only in bulk to travel agents who imprint it with their own names and give it free to clients and prospects. In April *Smart Traveler* entered the field, with photos and factual articles indicating the costs of various vacation activities. Pacific Highways launched a new travel magazine, *Pacific Pathways*. Other newcomers in the travel field were a quarterly, *Travel America Magazine Guide*, containing information on travel facilities; a general travel monthly, *Everywhere; Trek*, a "magazine designed for people who are going places"; and *Vermont Life*, a regional travel magazine sponsored by the Vermont State Development Commission.

Among the new digest magazines were the *McGraw-Hill Digest*, comprised of articles condensed from the other magazines issued by this publishing firm. It is printed in English for distribution overseas. Vying for the market of book condensation magazines, the *American Mercury* issued *Bestsellers. Omnibook* started another magazine of novel condensations, *Book-Reader*, which contains lighter material than *Omnibook* itself. Also new to the digest field in 1946 were the following: *Best Stories*, a fiction monthly containing new and reprint fiction and classic short stories to give the reader an opportunity to compare old and new writers; *Story Digest, A Story a Day*, a pocket-size monthly sold on the newsstands only, containing condensations of short fiction from leading magazines, as well as novels, literary quizzes, etc.; *Racing Digest; Voice, the Sounding Board of the Air;* and many others.

In addition to these two groups of new magazines, there were a number of publications aimed at special fields of interest. David Lawrence, publisher of *U.S. News*, launched a weekly newsmagazine, *World Report*, designed to be the international counterpart of *U.S. News*. In February a new fashion magazine, *Californian*, was brought out—a slick aimed to compete with *Vogue* and *Harper's Bazaar. Deb*, another magazine which angled for the teen-age market, started in April and was suspended by the end of the year. Still another magazine aiming for the teen-age market was begun by the Parents Institute, *Sweet Sixteen*, for "teen-agers who prefer comics interspersed with their more serious reading." This teen-age market is one of the most crowded of all, and these new magazines must compete with such phenomenal successes as *Seventeen* and *Miss America*, the second of which changed editors, format, and editorial content during the past year and hence was able to attract a healthy amount of new advertising. For stamp collectors, *Philately* began publication; and in the radio field *Sponsor*, designed for radio advertisers, came out; *Radio Best*, a large-scale radio fan magazine, was promised for January, 1947. *Kiplinger Magazine* was announced by the publishers of the famous *Kiplinger Washington News Letter. Magazine Intelligence*, a bi-weekly containing a 50- to 100-word abstract of each nonfiction item in 117 magazines in the U.S., Britain, and Canada, was started.

Douglas Lurton, successful publisher of *Your Life, Your Health*, etc., added another magazine to his group, *Success Today*. And for the clubwoman, a new magazine *Agenda* was announced for publication in April, 1947. This is to have a controlled circulation of 3,000, will be distributed free to program chairmen, and will contain program suggestions and discussions.

For the book trade, *U.S. Book News*, a publication for the Latin-American trade about the American book trade and American books, was started, and *Book Merchandising* was announced for February, 1947.

One of the most interesting developments in the new magazines in special fields is the launching of a number of new Negro publications. There have been a number of Negro magazines going for many years, including *Negro Traveler, Service, The Postal Alliance, The Circuit Magazine, Manuscript, The Aframerican Woman's Journal, Color, Negro Business, New Vistas, Sepia Hollywood, Bronze Confessions, Bronzeville Magazine, Memo, Pulse, Journal of Negro History, Negro Digest, Opportunity, Spotlighter*. But it was not until the publication in 1945 of *Ebony*, a Negro picture magazine resembling *Life*, that the potentialities of the Negro market were realized, and in 1946 several new competitors entered the field. Among these were *Our World*, which resembles *Look* in its editorial approach and contains features on Negroes, the theater, beauty, cooking; *Bronze Housekeeper*, a small magazine distributed to colored housewives mainly in the Philadelphia area, *Sight*, a picture magazine dealing with Negroes in the entertainment world; *The Easterner*, containing short features, articles, and fiction about Negroes; *Eyes*, "the Negroes' Own Picture Magazine," to "show through stories the advancement of the Negro race"; and *Journal of Negro Business*, designed to serve the Negro businessman.

A new Marxist literary quarterly, *Mainstream*, is due in January of 1947. *Baby Post*, a new publication for expectant and new mothers, distributed free to customers of the Associated Merchants Corporation, is out to compete with *Baby Talk* and similar magazines. The Automobile Digest Publishing Company began an illustrated slick quarterly

for the Midwestern gentleman farmer, *Farm Quarterly*. This is distributed within a 750-mile radius of Cincinnati and started off with a 100,000 circulation guarantee.

Another unusual development in new magazines is the enterprise set up by Jerome Ellison, formerly of *Liberty, Reader's Digest* and *Collier's*, to publish a magazine owned, operated and produced cooperatively by leading American artistic and literary talent. Voting stock is held by active writers and artists, and the group, known as Associated Magazine Contributors, has some 300 investor-contributors. The first issue is due in February, 1947. The magazine will contain fiction, non-fiction and picture articles, with about 60 percent text and 40 percent pictures. It will be known as *'47, The Magazine of the Year*. (Each year the date figure in the title will be changed.)

Following the end of the war, a number of new magazines of interest to veterans were announced for publication, and several actually got under way, though many to date either have not appeared or have folded. One of those which did appear, however, was *Salute*, the staff of which was originally made up of former staff members of *Yank* and *Stars and Stripes*. In spite of adverse publicity centered around the original publisher, Leverett Gleason, the magazine came out in April, 1946. It had a strong G.I. flavor, carried photos, cartoons, fiction, articles on world affairs. In the latter part of 1946 the magazine was sold and the editors resigned, and there are indications that the magazine in new hands will appeal to the mass male market served by *Esquire* and *Pic*.

A new Macfadden publication, the first in eleven years, appeared in the fall of 1946—*Sport*, a general sports magazine aimed at spectators of all major sports and most minor ones, designed to reach the mass men's market.

Science Illustrated, the old magazine taken over, promoted, and reworked by McGraw-Hill, came out in April, 1946.

Among the smaller new magazines we have: *Sports Management; Frequency Modulation; Fashion Trades; Newsdealer; Occupational Medicine; Vend*, for the automatic merchandising industry; *Mammoth Adventure; True Police Cases; Buy Right; Fortnight: The Magazine of California; Texas Week; Oil Forum; Drink, the Magazine of the Liquor Consumer; Disc*, a magazine concerned with recordings of popular music for younger readers; the *Kirkeby Hotels Magazine*, published by the publishers of *Promenade; Your Own Home; The World in Books; Mr. and Mrs.*, a monthly modeled after *The New Yorker, Esquire, Vogue*, etc., dealing with men's and women's fashions, entertainment and literature; *Freedom and Union*, brought out by Clarence K. Streit's Federal Union, Inc.; four new magazines published by Parents' Institute's junior magazines—*Polly Pigtails, Calling All Boys, Calling All Kids, Sport Stars* (and in April they will bring out a new magazine for boys, *Varsity*); *American Inspiration; Geriatrics; Dixie Digest; Baker St. Journal;* and many others.

Coming in January are a new review of Southern affairs, *Pace*, and a regional magazine of the Southwest called *Scene*.

In addition to the many new magazines started during 1946 and those already definitely announced for 1947, there are still a few on which considerable spade work is being done. Among these is the new magazine project of Marshall Field, which will be called *U.S.A.*, on which Norman Cousins and J. R. Cominsky of the *Saturday Review of Literature* have been working for some time. *Magazine X*, the new Curtis publication, is still in the experimental stage. This will resemble *Life* and is to appeal to the large mass circulation. *Collier's* and *Look* are also experimenting on new magazine projects, and it is reported that Esquire, Inc., is planning a new high-class quarterly, *Moment*, which will be published in Europe and printed in Swedish, French, German, and English.

In spite of the fact that the magazine business has been so prosperous, there is evidence that magazine publishers are still uncertain of the postwar market and the development of the industry. In order to determine this, they have conducted extensive surveys of readership and magazine audiences. One of the largest surveys was the "Continuing Study of Magazine Audiences," which issued three reports; the first on *Life, Collier's* and the *Saturday Evening Post;* the second on *Good Housekeeping, McCall's, Ladies' Home Journal* and *Woman's Home Companion;* and the third on *Look, American* and *Cosmopolitan*. Another survey was taken among advertising men and advertisers to determine whether general magazines should let circulation go up when paper is more plentiful, with corresponding advances in advertising rates. Seventy-eight percent answered yes. *Family Circle, Liberty, Glamour, McCall's* (on how many women read what magazines), The Thrilling Group (on who reads the pulps), and *The Atlantic Monthly* were among the others who conducted readership surveys.

There was evidence during the year that several of the larger magazines as well as some new publishers were viewing the foreign and overseas market with more than casual interest. The *Reader's Digest* brought out new foreign editions in Denmark, Japan, and Australia. Scheduled for March, 1947, are French and Norwegian editions of the *Digest*, and later a French-Canadian edition, which will bring the total of the *Reader's Digest* foreign editions to twelve. *Life, International* was set up to handle the foreign market for *Life*, and is revamping for permanent postwar operation. *Popular Science* broadened its foreign field with a Swedish edition called *Popular Teknik*, made up partly from *Popular Science* and partly from new material gathered abroad. The circulation of the Russian language picture magazine, *Amerika*, which was started by the Office of War Information and is now under the State Department's Office of International and Cultural Affairs, was raised to 50,000 copies, but with the budget slash by the House of Representatives, it was doubtful how long the magazine could be continued. After a conference in which the extreme importance of *Amerika* to the Russian people was stressed (it is said that there are thirty readers to a copy and that the magazine sells at high prices in the Russian black market), W. Averell Harriman, former U.S. Ambassador to Moscow, set up a foundation to insure the continuance of its publication. This is reported to be approximately $250,000. *Omnibook* brought out a Latin-American edition and a continental European edition, and *Popular Mechanics* issued a French edition.

During the war years Crowell-Collier were the nominal publishers of *Victory*, a lavish, multi-lingual magazine of propaganda produced by the Office of War Information. As an outgrowth of this, they are planning an international peacetime picture magazine with United States subject matter. Writing and translations will be done here, and printing and sales in major countries of Europe and South America, which did not get *Victory*.

One of the most important as well as controver-

sial issues in the literary world was advanced by James M. Cain, of the Screen Writers' Guild in the June, 1946, issue of *The Screen Writer*. This proposal, known as the American Authors' Authority, outlined a new association of authors for all media —movies, books, magazines, etc. Under the terms of this association, authors would turn over the copyrights of all their material to the Authority, which in turn would (1) keep an accurate record of copyright and all transactions arising under it; (2) take over all court actions (as legal owner of the copyright); (3) enforce rights of copyright, especially in tax legislation, through maintenance of lobbies. The Authority would not act as authors' agents nor have anything to say about wages, prices, rates. No copyright would be sold outright, either in full or in part, but the Authority would lease it for a specified period of time. According to Mr. Cain, the basic premise of the Authority is to build a conception of an author as a creator of property. While membership in the Authority is not mandatory, and the Authority would accept the property of any author, a writer must join in order to have a voice in the management of the Authority.

While the Cain plan was accepted by the Screen Writers' Guild, tremendous opposition was shown by many authors and publishers and also within the ranks of the Authors' League itself. By the end of 1946 several full-scale debates and discussions had taken place regarding the proposal, and some modifications had already been proposed by Mr. Cain. The entire issue seemed certain to produce far-reaching and extensive changes in the editorial relationship between author and publisher.

Another newsworthy event of the magazine year was the publication in *The New Yorker* of the report on Hiroshima by John Hersey. This occupied the entire editorial space of the August 31st issue of the magazine, and was a sell-out almost as soon as it hit the newsstands. Magazine and picture rights were sold and the report reprinted in a number of newspapers. It has since been issued in book form by Knopf.

An event which created a stir in the magazine world was the appointment of Henry A Wallace, former Secretary of Commerce and Vice-President, as editor of *The New Republic*. This is another of the many steps taken by *The New Republic* toward becoming a general opinion magazine. It has also changed its format, sponsored a national radio program and hired Edward Bernays as public relations counsel.

In November *Liberty* announced that starting with its February 1, 1947, issue, it would become a bi-weekly. Various changes in its editorial content were promised, including a large picture section. Interesting in connection with *Liberty* is the 16-page four-color ad of the Lionel Train Corporation in the issue of November 23rd. Unable to find a printer for their catalog, the Lionel Corporation asked *Liberty* to run the ad and to furnish them with sufficient "reprints" for distribution. Lionel got their catalogues, saved money, and *Liberty* carried what is reputed to be the largest single ad ever to appear in a national weekly.

Along with the many new magazines and other evidences of expansion on the magazine scene, there are the negative aspects of the business—most clearly shown in the large number of magazines suspended during the last year. These include *Deb, She, Fascination, Predictions by Experts, In Short, New Books Digest, Read, Fact, How To Reduce Stories, Aero Review, New York Radio, U.S. Home, American Family, Fighting Aces, Industrial Aviation, New Europe, Strange Detective Cases,* and many of the veterans' magazines like *Veterans Outlook*.

Many of the magazines which were started during or immediately after the war may not be able to survive continued rising costs, strikes, slowness of production, and paper shortages, which have been plaguing even the larger and older publications. It is possible that even more suspensions will come with the decrease in buying power and lessening of reader interest in general. This reduction of the total number of publications is expected to free newsstand space for the better-selling and longer-established magazines.

A. S. BURACK.

MAGNESIUM. Only one magnesium plant, of 9,000 short tons annual capacity, was operating at the end of 1946, compared to a peak wartime capacity, never fully utilized, of 293,000 short tons divided among 16 plants.

The only prewar metal producing plant, that of the Dow Chemical Co. at Midland, Michigan, was dismantled. This plant had used salt brine wells as its source of raw material. Dow, however, resumed operations, recovering the metal from sea water, in July, at its Freeport, Texas, plant, which became the only magnesium metal plant operating on a commercial scale. Preparations were being made by the Henry J. Kaiser interests to reopen the Permanente Metals plant near Los Altos, California. The Freeport plant was operating at maximum capacity at the end of the year.

Aside from the Dow operations, consumer demand was largely supplied from a large tonnage of ingots left in stockpile at the end of the war. The privately held stocks owned by Dow had largely been used when the Freeport plant was reopened.

Shipments of wrought magnesium products totaled 3,100 tons during the year as compared with 3,000 tons in 1945. Plates, sheet, and strip represented slightly more than half this tonnage, the balance being extrusions and forging stock. The rate of shipments increased rapidly during the year, and the tonnage of the closing months was nearly double that of the opening months.

Castings production which was almost wiped out at the end of the war was slowly built up to a monthly rate of 500 tons at the close of 1946. Of this tonnage 85 percent was sand castings, nine percent die castings and six percent permanent mold castings.

The rapid increases in wrought and cast magnesium production for peacetime applications reflect the aggressive development and promotion of the metal by the industry. New products to apply the light weight and easy fabrication of magnesium are constantly being sought after. Some important markets are in metal furniture and in toys. Although the largest market in aircraft castings and forgings ended with the war, significant tonnages are still used in commercial and military aircraft.

Ingot production plants which are to be held in a standby condition for defense requirements have a total ingot capacity of 88,000 tons. The Velasco, Texas electrolytic plant has a capacity of 36,000 tons; the Spokane, Washington, ferrosilicon plant, 24,000 tons; the Painesville, Ohio electrolytic plant, 18,000 tons; the Luckey, Ohio ferrosilicon plant, 5,000 tons; the Canaan, Connecticut, ferrosilicon plant, 5,000 tons.

CHARLES T. POST.

MALTA. A British colony in the Mediterranean, comprising the island of Malta (95 square miles),

Gozo (28 square miles) and Comino (1 square mile). Civil population (1944 estimate), 279,187. Capital, Valetta.

Production and Trade. Malta produces wheat, barley, fruits, cotton, and livestock, and maintains an important fishing industry. In the war years exports were only a fraction of imports.

Government. Malta is governed according to Letters Patent promulgated on February 26, 1939, which granted a constitution providing for a council of government of 20 members presided over by the Governor. In 1943 the British Government announced that after the war responsible government would be restored, and in 1945 the National Assembly decided in favor of a two-chamber house. On November 28, 1946, the newly-appointed Governor, F. G. R. Douglas (succeeding Sir Edmund Schreiber, retired because of illness), announced at a meeting of the Council of Government that it was the declared intention of the British Government that responsible government should be reestablished in the islands, but that until elections were possible the Council of Government should continue to act as then constituted.

MANDATED TERRITORIES. Following is a list of territories conquered from the German and Turkish empires during World War I and mandated by the League of Nations to various of the Allied Powers under the terms of the Treaty of Versailles.

Mandated Territory	*Mandatory Power*	*Former Owner*
Cameroons, British	Great Britain	Germany
Cameroun, French	France	Germany
Japanese Pacific Islands	Japan	Germany
Nauru	British Empire	Germany
New Guinea, Territory of	Australia	Germany
Palestine	Great Britain	Turkey
Ruanda-Urundi	Belgium	Germany
Samoa, Western	New Zealand	Germany
South-West Africa	Union of South Africa	Germany
Tanganyika Territory	Great Britain	Germany
Togo, French	France	Germany
Togoland	Great Britain	Germany

Iraq, a territory mandated to Great Britain, became an independent state by treaty with the mandatory power on June 30, 1930. Iraq was admitted to membership in the League of Nations and the mandate terminated on Oct. 4, 1932. Syria and Lebanon were proclaimed independent republics on Sept. 16 and Nov. 26, 1941, respectively, by Gen. Georges Catroux, the Free French High Commissioner. On Dec. 27, 1943, an agreement was signed between representatives of the French National Committee of Liberation and of Syria and Lebanon, by which all powers and capacities exercised hitherto by France under mandate were transformed as from Jan. 1, 1944, to the Syrian and Lebanese governments.

As a result of the defeat of Japan in World War II, the Japanese Pacific mandates of Marshall, Caroline, and Mariana Islands passed under the occupation of the United States. The former Italian colonies of Libya, Eritrea, and Italian Somaliland were occupied by Great Britain. Under the draft peace treaties concluded in Paris by the major Allied powers in the summer, 1946, decision on the disposal of the Italian Colonies may be deferred for a year.

In the provisions of the United Nations Charter, a Trusteeship Council was created to dispose of "trust territories"—those non-selfgoverning territories that may be placed under United Nations supervision. In the concept of the Trusteeship Council, subject territories fall into three categories: (1), former German colonies mandated to various powers after World War I; (2), Pacific Islands mandated to Japan after World War I, now occupied by U.S. forces, (3), former Italian colonies in Africa.

At the closing sessions of the United Nations General Assembly in December, trusteeship for the following territories were approved: Great Britain for the British Cameroons, British Togoland, and Tanganyika; France for the French Cameroun and French Togoland; Belgium for Ruanda-Urundi; New Zealand for Western Samoa; Australia for New Guinea.

On November 6 the United States requested that former Japanese mandates, and eventually other Japanese islands, be placed under the UN as "strategic area" trusteeship. Further request was made that the designated areas be placed under the sole administration of the United States with the right to fortify the islands and close them to the outside world for "security reasons."

MARCUS. A small island in the Pacific (24° N. and 153° 30′ E.), 1,185 miles southeast of Tokyo; occupied by the Japanese in 1899; under United States control following the surrender of Japan in 1945. On November 6, 1946, the United States requested that the island be placed under United Nations trusteeship with the United States as administering authority.

MARITIME COMMISSION, U.S. The U.S. Maritime Commission, established by the Merchant Marine Act of 1936, is charged with the creation, development, and maintenance of an American Merchant Marine, adequate to serve as an auxiliary to the armed services in times of emergency; to carry all the nation's domestic water-borne commerce, and a substantial portion of its foreign trade.

A long range program to construct ships for replacement of obsolescent and over-age vessels was initiated in 1937–38, envisioning the building of 500 ships within ten years. At the same time a comprehensive system of training seamen was established, and other measures taken to insure the regulation and satisfactory operation of the American Merchant Marine under guidance of the Act of 1936.

An upward revision of building schedules was made in 1939 when an increasing burden was thrown on the United States merchant fleet by the outbreak and spread of war in Europe. Extension of aid to the nations aligned against the Axis in 1940 and the greater commitments planned under lend-lease led to the planning of an emergency ship construction program, put into operation in the spring of 1941. The first Liberty ships—the emergency-built vessels that came from the yards in so prolific a number in 1942 and 1943—were delivered the same month that Pearl Harbor was attacked.

A directive to the Commission from the President early in 1942 set the amount of shipping to be built that year at eight million deadweight tons and double that amount in 1943. The enormous productivity of the shipyards in the emergency program raised the amount of tonnage constructed under Commission direction in 1942 to more than the goal that had been set. As the emergency program made further advances in 1943, the year's total reached more than 19 million tons. In the first two years of wartime ship construction in the United States there were built 2,642 vessels. Their aggregate carrying capacity of 27,328,358 deadweight tons replaced all the shipping losses suffered by the United Nations.

At the beginning of 1944 the Commission an-

nounced that the emergency program would be curtailed during the year and that construction of faster cargo vessels and of special types for use of the armed services would be given emphasis. Production in 1944 was 1,786 ships aggregating 16,299,985 deadweight tons. Though this was about one-sixth less than the record made in 1943, it includes a number of large vessels built for or converted to military use, showing comparatively little deadweight tonnage.

In May, 1946, the Maritime Commission drew up the pattern of the nation's peacetime ocean shipping by officially designating thirty-two foreign trade routes as essential for maintaining the minimum flow of United States overseas commerce. Following is the list of essential routes, subject to augmentation or alteration as future circumstances warrant:

Trade Route No. 1—U. S. Atlantic port (Maine-Key West inclusive)—East Coast South America (Brazil, Uruguay, Argentina)

Trade Route No. 2—U. S. Atlantic ports (Maine-Key West inclusive)—West Coast South America (Chile, Peru, Ecuador and the Pacific Coast of Colombia).

Trade Route No. 3—U. S. Atlantic ports (Maine-Key West inclusive)—East Coast of Mexico.

Trade Route No. 4—U. S. Atlantic ports (Maine-Key West inclusive)—Caribbean ports.

Trade Route No. 5—U. S. North Atlantic ports (Maine-Cape Hatteras inclusive)—United Kingdom and Eire.

Trade Route No. 6—U. S. North Atlantic ports (Maine-Cape Hatteras inclusive)—Scandinavian, Baltic ports.

Trade Routes Nos. 7 & 8—U. S. North Atlantic ports (Maine-Cape Hatteras inclusive)—Antwerp, Hamburg Range.

Trade Route No. 9—U. S. North Atlantic ports (Maine-Cape Hatteras inclusive)—Atlantic France and Northern Spain (French-Belgian Border south to Northern Border of Portugal).

Trade Route No. 10—U. S. North Atlantic ports (Maine-Cape Hatteras inclusive)—Mediterranean, Black Sea, Portugal, Spain (South of Portugal), Morocco (Casablanca to Tangiers).

Trade Route No. 11—U. S. South Atlantic ports (Cape Hatteras-Key West inclusive)—United Kingdom and Eire, Continental Europe (North of Spanish Border), Scandinavian and Baltic ports.

Trade Route No. 12—U. S. Atlantic ports (Maine-Key West inclusive)—Far East (Philippine Islands, China, Manchuria, Korea, Japan, U.S.S.R. in Asia, French Indochina, Formosa and Siam).

Trade Route No. 13—U. S. South Atlantic & Gulf ports (Cape Hatteras-Texas inclusive)—Mediterranean, Black Sea, Atlantic Spain, Portugal, Morocco (Casablanca to Tangiers inclusive).

Trade Route No 14—U. S. Atlantic & Gulf ports (Maine-Texas inclusive)—West Coast of Africa from Southern Border of French Morocco to Cape Frio) and Madeira, Canary, Cape Verde and other Islands adjacent to the West African Coast.

Trade Route No. 15A—U. S. Atlantic ports (Maine-Key West inclusive)—South and East Africa (Cape Frio-Cape Guardafui) and Madagascar.

Trade Route No. 15B—U. S Gulf ports (Key West-Mexican Border)—South and East Africa (Cape Frio-Cape Guardafui) and Madagascar.

Trade Route No. 16—U. S. Atlantic & Gulf ports (Maine-Texas inclusive)—Australia, New Zealand, New Guinea and South Sea Islands.

Trade Route No 17—U. S. Atlantic & Gulf ports (Maine-Texas inclusive)—Straits Settlements, Netherlands East Indies

Trade Route No. 18—U. S. Atlantic & Gulf ports (Maine-Texas inclusive)—India, Burma, Persian Gulf and Red Sea.

Trade Route No. 19—U. S. Gulf ports (Key West-Mexican Border inclusive)—Caribbean ports.

Trade Route No. 20—U. S. Gulf ports (Key West-Mexican Border inclusive)—East Coast South America (Brazil, Uruguay and Argentina).

Trade Route No. 21—U. S. Gulf ports (Key West-Mexican Border inclusive)—United Kingdom and Eire, Continental Europe (North of Spanish Border), Scandinavian and Baltic ports.

Trade Route No. 22—U. S. Gulf ports (Key West-Mexican Border inclusive)—Far East (Philippine Islands, China, Manchuria, Korea, Japan, U.S.S.R. in Asia, French Indochina, Formosa and Siam).

Trade Route No. 23—U. S. Pacific ports—Caribbean ports.

Trade Route No. 24—U. S. Pacific ports—East Coast of South America (Brazil, Uruguay, Argentina).

Trade Route No. 25—U. S. Pacific ports—West Coast of Mexico, Central America and South America.

Trade Route No. 26A—U. S Pacific ports—United Kingdom and Eire.

Trade Route No. 26B—U. S. Pacific ports—Havre, Hamburg Range.

Trade Route No. 27—U. S. Pacific ports—Australia, New Zealand, New Guinea and South Sea Islands.

Trade Route No. 28—U. S. Pacific ports—Straits Settlements, Netherlands East Indies, India, Burma, Persian Gulf and Red Sea.

Trade Route No 29—California ports—Far East (Philippine Islands, China, Manchuria, Korea, Japan, U.S.S.R. in Asia, French Indochina, Formosa and Siam).

Trade Route No. 30—Washington and Oregon ports—Far East (Philippine Islands, China, Manchuria, Korea, Japan, U.S.S.R. in Asia, French Indochina, Formosa and Siam).

Trade Route No. 31—U. S. Gulf ports (Key West-Mexican Border inclusive)—West Coast South America (Chile, Peru, Ecuador and the Pacific Coast of Colombia).

The functions of the Maritime Commission included, between 1939 and October, 1946; the construction of 5,856 ships, aggregating 57,057,560 deadweight tons. During 1945, cargo shipped from the United States on all flag vessels totaled 83,469,000 long tons. The labor force of the Merchant Marine, including shore reserve numbered 197,000 men in September, 1946.

War Shipping Administration. The WSA was created by an Executive Order of the President in February, 1942. It was given strategic control, for duration of the war, over all ocean-going vessels belonging to the United States except those under jurisdiction of the armed services. The training functions of the Maritime Commission were transferred to WSA. The U.S. Maritime Service for the training of seamen and their upgrading, and the Merchant Marine Cadet Corps for the training of young men directly as ships' officers were expanded to proportions by which the demands for ships' personnel have continuously been met. The Recruitment and Manning Organization supplements the efforts of owners, operators, and maritime unions in manning ships by seeking out experienced seamen ashore and inducing them to return to sea, and by taking whatever measures are necessary to prevent sailing delays for lack of crews.

Ships under control of WSA moved three-quarters of the 62 million long tons of export cargo from the United States in 1943. This rate of movement was about 20 percent greater in 1944.

In the first six months of 1945, 48,225,000 long tons of cargo were exported on WSA controlled vessels. Of this, 11,850,000 tons were bulk liquid cargo, the rest military and dry cargo. On November 1, there were 4,442 merchant ships of 46,839,000 deadweight tons under WSA control. On September 1, 1946, the WSA was absorbed by the Maritime Commission. The termination of the WSA brought to a close the greatest emergency shipping operation in maritime history. During the war WSA-controlled ships moved 75 percent of the total 268,000,000 long tons of cargo shipped overseas. Enemy action and marine disaster, due largely to war conditions, caused the loss of 733 large vessels. At the height of the war the WSA had 243,000 ship officers and seamen on its rolls, of which 196,000 remained at the time of absorption of the WSA by the Maritime Commission. A peak total was reached in 142,200 men assigned to ships in 1945. The number of men killed or reported missing after enemy attacks reached 5,000.

United Maritime Authority: The United Maritime Authority was established in November, 1944, to coordinate efforts of the United Nations in meeting shipping problems from the time of the defeat of Germany until six months after the cessation of

hostilities with Japan. Participating members are the United States, United Kingdom, Netherlands, Norway and France. Associate members include Belgium, Canada, Greece, Poland, Australia, Brazil, Chile, Denmark, India, New Zealand, Sweden, and the Union of South Africa.

Meeting in October, 1945, the UMA decided to maintain control over commercial ship operation until six months after September 2, date set for suspension of hostilities. The final session of the UMA 1946 Conference was held during the fall at Amsterdam, the Netherlands, during which it was decided to close the Authority. Each representative agreed to inform his Government if necessary measures needed to facilitate the prompt and efficient transportation of relief and rehabilitation cargoes.

MARKLE FOUNDATION, John and Mary R. Established in 1927 by John Markle. Limits its major activities to grants to institutions in support of special projects in medical research. President, Thomas W. Lamont; Vice-President, George Whitney; Treasurer, Vernon Munroe; Secretary, Florence E. Quick; Assistant Treasurer and Assistant Secretary, Irene R. Power. Offices: 14 Wall Street, New York 5, N.Y.

MARRIAGE STATISTICS. In the first eleven months of 1946, the total number of marriage licenses issued in cities of 100,000 or more inhabitants, was 716,469 (National Office of Vital Statistics). It exceeded the comparable figure for 1945 by 39.9 percent and the 5-year (1941–1945) average for January-November by 41.4 percent. Compared with 1942, the previous peak year for marriages, it was 31 5 percent greater than the January-November total and 20.4 percent above the 12-month total for that year.

A decrease in the number of marriage licenses issued was reported for only 7 of the 91 individual areas for the first 11 months of 1946 compared with the same period in 1945. The changes ranged from an increase of 91.9 percent in Chattanooga, Tennessee, to a decrease of 42.5 percent in Jacksonville, Florida. Compared with the 5-year average (1941–1945) for January-November, the changes ranged from an increase of 146.2 percent in Kansas City, Kansas, to a decrease of 45.9 percent for Jacksonville, Florida.

Interpretation of the increases and decrease reported for the individual areas must take into account changes in armed force distribution in or near the city concerned. Changes in State marriage laws during or preceding the comparison period also may have a pronounced effect.

The 91 areas covered by this report comprise 34 cities with a 1940 population of 100,000 or more, and 57 counties containing the remaining 58 cities in that size group. The counties represent cases where data for the city alone are not available. The combined population for the areas in 1940 constituted about one-third of the total population of the United States.

During the 6-year period, 1939 to 1944, the number of marriage licenses issued by all cities of 100,000 inhabitants or more, combined, rose from 408,989 in 1939 to an all-time peak of 594,908 in 1942, and then fell steadily through 1943 and 1944, according to summary statistics compiled by Director J. C. Capt of the Bureau of the Census. However, the 1944 annual total of 513,147 was still 25.5 percent higher than that for 1939, the year in which the Nazis invaded Poland.

As compared with the marriage figures for the Nation as a whole during the same period, the city totals exhibited a more rapid rise at the outset, reached a relatively higher peak above the 1939 level, and subsequently receded somewhat more slowly toward the total for that earlier year.

Month	*Number of Licenses Issued* *1946*	*1945*
Total, 12 months	769,223	569,289
January to November	716,469	511,984
January	62,458	42,084
February	59,673	35,635
March	51,144	41,256
April	63,643	39,817
May	73,959	45,005
June	86,448	55,325
July	59,211	49,348
August	74,640	50,108
September	64,113	45,689
October	61,070	52,026
November	60,110	55,691
December	52,754	57,305

The regional differences which appear reflect principally differences in the degree and timing of the impact of the war on the economy of the several regions, and the influence of the geographic location of Army and Navy installations, particularly training centers.

In general, the peak came earlier in the Northeastern and North Central cities, while the Southern and Western city groups showed the greatest comparative gains. By the end of 1944 the annual total of marriage licenses issued by the major cities in the Northeastern and North Central States had reverted to something like the 1939 level. In the South and the West, however, the number of marriage licenses issued was about 75 percent greater in 1944 than in 1939.

MARRIAGES IN CITIES OF 100,000 INHABITANTS OR MORE, COMBINED, AND IN THE UNITED STATES, AS A WHOLE. 1939 TO 1944

(*A minus sign [−] denotes decrease*)

Year	*Total Marriages*	*Increase Over Preceding Year* *Number*	*Percent*	*Increase Over 1939* *Number*	*%*
		(*In Cities of 100,000 Inhabitants or More*[a])			
1944	513,147	−48,815	−8 7	104,158	25 5
1943	561,962	−32,946	−5 5	152,973	37.4
1942	594,908	47,731	8 7	185,919	45 5
1941	547,177	70,273	14 7	138,188	33.8
1940	476,904	67,915	16.6	67,915	16.6
1939	408,989	.....	. .	.....	...
		(*In the United States*[b])			
1944	1,441,000	−136,000	−8 6	66,000	4.8
1943	1,577,000	−181,000	−10 3	202,000	14 7
1942	1,758,000	79,000	4 7	383,000	27 9
1941	1,679,000	114,000	7 3	304,000	22.1
1940	1,565,000	190,000	13.8	190,000	13 8
1939	1,375,000	.....	.	. .	...

[a] Statistics represent marriage licenses issued in 34 cities with a 1940 population of 100,000 or more, and 57 counties containing the remaining 58 cities in this size group. County data are used where data for city alone are not available. [b] Statistics represent marriages performed. Figures for 1941 to 1944 are estimates; figure for 1944 is preliminary.

The war produced a remarkable increase in the percentage of men and women who were married and the new matrimonial level was maintained in at least the first six months of the postwar period. The number of married couples increased by more than 3,720,000 from April, 1940, to February, 1946. About one-third of this increase may be attributed to the high wartime marriage rates and two-thirds to an increase in the number of persons of marriageable age.

Marital Status by Sex and Age. Since many men were still in the armed forces in February, 1946, the number of married women represents the best approximation to the number of married couples in the United States. At this time there were 33,-

810,000 married women (not including the relatively few in the armed forces or in institutions), representing 63.2 percent of the female civilian noninstitutional population 14 years old and over. A similar survey made in February, 1944, showed 32,850,000 women married, or 62.8 percent of the female civilian noninstitutional population 14 years old and over. In 1940 the decennial census showed that only 30,090,488, or 59.5 percent, of the total female population 14 years old and over were married. (If the 1940 figure were adjusted to exclude women in institutions, the percentage married would be increased to 59.8.)

years old and over also contributed to the rise in the overall proportion married.

The distribution of civilian men by marital status cannot be fairly compared with the distribution of civilian women, as the disparity created by inductions of men into the armed forces has not yet been eliminated by discharges. Between February, 1944, and February, 1946, the number of single men in the civilian noninstitutional population 14 years old and over increased by 34.3 percent, of married men by 8.0 percent, and of widowed and divorced men by 20.0 percent. In terms of absolute numbers there was a net increase of 2,380,000

MARRIAGE LAWS REQUIREMENTS *
(As of January 1, 1946)

State	Minimum Marriage Age Specified in Law		Common Law Marriages Are Valid	Marriage Prohibitions, Infectious Diseases	Physical Examination and Blood Test for Male and Female			Waiting Period Before Issuance of License
	Male	Female			Date of Enactment	(a)	Scope of Laboratory Test	
Ala.	17	14	Yes	None	(b)	15 da.	(g)	. .
Ariz.	18	16	No	None	....	..	...	....
Ark.	18	16	No	None	....	..	..	..
Calif.	18	16	No	None	1939	30 da.	(c)	3 da.
Colo.	18	18	Yes	None	1939	30 da.	(e)	.
Conn.	16	16	No	None	1935	40 da.	(c)	5 da.
Del.	18	16	No	Yes [i]	..	..	.	
Fla.	18	16	Yes	None	....	....	.	
Ga.	17	14	Yes	None	....	..		5 da.
Idaho	14 [d]	12 [d]	Yes	None	1943	30 da.	(c)	
Ill.	18	16	No	None	1939	15 da.	(g)	.
Ind.	18	16	Yes	None	1939	30 da.	(c)	.
Iowa	16	14	Yes	None	1941	20 da.	(c)	...
Kan.	18	16	Yes	None		.		.
Ky.	16	14	No	None	1940	15 da.	(c)	
La.	18	16	No	None	(i)	..	...	
Maine	16	16	Yes	Yes	1941	(c)	...	5 da.
Md.	18	16	No	None		.	.	2 da.
Mass.	18	16	No	None	1943	30 da.	(c)	5 da.
Mich.	18	16	Yes	None	1939	30 da.	(g)	5 da.
Minn.	18	16	No	None	....	. .	.	5 da.
Miss.	14 [d]	12 [d]	Yes	None	...	..		5 da.
Mo.	15	15	No	None	1943	15 da.	(e)	
Mont.	18	16	Yes	None	....	. .	..	
Neb.	18	16	No	Yes	..		..	
Nev.	18	16	No	None			..	
N.H.	14	13	No	None	1937	30 da.	(c)	5 da.
N.J.	14 [d]	12 [d]	No	None	1938	30 da.	(c)	2 da.
N.M.	18	16	No	None	....	....		.
N.Y.	16	14	No	None	1938 [f]	30 da.	(c)	3 da.
N.C.	16	16	No	None	1941	30 da.	(c)	.
N.D.	18	15	No	None	1939	30 da.	(c)	
Ohio	18	16	Yes	None	1941	30 da.	(c)	5 da.
Okla.	18	15	Yes	Yes	....	....	..	.
Ore.	18	15	No	None	1937	10 da.	(h)	3 da.
Penn.	16	16	Yes	None	1939	30 da.	(c)	3 da.
R.I.	18	16	Yes	None	1938	40 da.	(c)	.
S.C.	18	14	Yes	None	.	....	..	.
S.D.	18	15	Yes	None	1939	20 da.	(c)	
Tenn.	16	16	Yes	None	1939	30 da.	(g)	3 da.
Texas	16	14	Yes	None	(j)	..	.	.
Utah	16	14	No	Yes	1941		(e)	. .
Vt.	18	16	No	Yes	1941	30 da.	..	
Va.	18	16	No	None	1940	30 da.	(c)	..
Wash.	14 [d]	12 [d]	No	Yes	.	....		3 da.
W.Va.	18	16	No	None	1939	30 da.	(c)	3 da.
Wis.	18	15	No	None	1939	15 da.	(c)	5 da.
Wyo.	16	16	Yes	None	1943	30 da.	(g)	. .

[a] Time allowed between date of examination and issuance of license.
[b] In 1919 law adopted applying to male only, laboratory test authorized but not required.
[c] Syphilis.
[d] Common-law marriage age.
[e] Syphilis and other venereal diseases.
[f] Amended in 1939.
Venereal diseases.
[h] Syphilis and gonorrhea.
[i] In 1924 law adopted applying to male only; laboratory test authorized but not required.
[j] In 1929 law adopted applying to male only; no provision as to laboratory test.
[k] "Yes" indicates that the state prohibits the marriage of those with a transmissible disease in an infectious stage.
* Information furnished by the Women's Bureau, U.S Department of Labor.

The increase between 1940 and 1946 in the percentage married among adult females was equal to the increase in the 50-year period from 1890 to 1940. The increase since 1940 is without doubt attributable mainly to the psychological effects of war conditions and to a new sense of economic security resulting from full employment and higher wages. These causes led to an increase in the proportion married for women of all age groups except young women 14 to 19 years old. The changing age composition of the female population 14

married men, 3,200,000 single men, and 450,000 widowed and divorced men. In 1946 there were 1,880,000 more married men in the civilian noninstitutional population than there were in the total population in 1940, but the number of single men was 5,070,000 less.

It is not possible to observe in the census data the full effect of the recent great increase in divorces or in the number of war widows, as many widowed and divorced women have remarried and are returned as "married." Since 1940 there has

been only a small increase in the proportion of females 14 years old and over who are widowed and divorced (and not remarried), from 12.9 percent in 1940 to 13.0 percent in 1944 and to 13.8 percent in 1946. At this last date there were only 150,000 more women reported as widowed or divorced than there would have been if the proportion of women in each age group who were widowed and divorced had not changed since 1940.

MARTINIQUE. Department of France in the West Indies, between the British islands of Dominica and St. Lucia. On March 14, 1946, the status of Martinique was changed from a colony to a department, effective January 1, 1947. Area, 385 square miles. Population (January 1, 1940), 260,000, mostly Negro and mulatto, with about 5,000 whites. Fort-de-France, the capital, had 52,051 inhabitants; Le Lamentin, 16,303. Sugar, cacao, bananas, pineapples, and rum are the main products. Trade (1938; in U.S. dollars): imports $6,756,000; exports $8,918,000. Budget (1937): 101,100,000 francs. The colony is administered by a Governor, aided by a privy council and a general council. All citizens without regard to color enjoy the same civil and political rights as Frenchmen in the mother country. The general council, which votes the budget, and the municipal councils are elected by universal suffrage. In addition, the colony was represented in the French Parliament by 1 senator and 2 deputies. Governor: Georges Parisot (appointed December 5, 1944).

MAURITIUS. A British island colony in the Indian Ocean, comprising the island of Mauritius, about 500 miles east of Madagascar, and a number of dependent islands. The area of Mauritius is 720 square miles with dependent islands totaling 87 square miles. Population of Mauritius (1944 census) is 419,185 with dependencies totaling 13,463. Capital: Port Louis. Authority is vested in a Governor, aided by an Executive Council and a Council of Government, partly elected. Sugar is the chief product and article of export, but copra, aloe fiber, tobacco and tea are also produced.

MEDICINE AND SURGERY. Medical Officers Discharged. Since V-E Day about thirty-two thousand medical officers have been released from military service. On May 1 the discharge reuirements for the Medical Corp general-duty officers were reduced from 39 to 30 months of service; for certain specialist officers from 45 to 39 months. Officers returning from overseas will be discharged if their eligibility for discharge is due within six months. Army doctors overseas, regardless of military occupational specialty, will be separated or en route to the United States within 60 days of eligibility. These measures will result in a more rapid return to their respective communities.

In 1945 the number of physicians in the United States increased by 1,892. Reports from licensing and examining boards in the 48 states, the District of Columbia, territories, and possessions list 9,153 licenses, 5,707 of them of first instance. The latter figure may be compared to 3,815 physician deaths in 1945, indicating an increase of 1,892 to the net physician population.

Non-Explosive Anaesthetic. Xenon, a gas which forms $\frac{1}{170}$ millionth of the atmosphere, which we breathe, offers possibilities as a new non-explosive anaesthetic. The anaesthetic quality of xenon was discovered during studies on high altitude sickness. Dr. John H. Lawrence, and associates of the University of California, Berkeley, California, produced temporary staggering stupor and paralysis in mice with a mixture of 70 percent xenon and 30 percent oxygen. Tracer experiment with radioactive xenon showed that the gas permeates the spinal cord and whole nervous system in a manner characteristic of anaesthetics. The gas has narcotic effects on human subjects, as well as on animals. Anaesthesia produced by xenon may be extended by mixing the inert gas with another substance.

New Insecticide. The Navy announces the development of a chemical compound, which both kills and repels insects. Produced by Lt. Comdr. Michel Pijoan and Lt. L. A. Jackowski at the Naval Medical Research Institute, Bethesda, Maryland, the compound is called NMRI 448 from the initials of the institution and the fact that it was the 448th coumpound developed there. The product is nontoxic, is soluble in water or perspiration.

New Drug for Asthma. Ethyl-nor-epinephrine is an efficient bronchodilator which does not increase heart rate or blood pressure. During 18 months of trial in the Allergy Clinic, University of Maryland, Baltimore, Maryland, Howard M. Bubert, M.D. and John P. Doenges, M.D. found E.N.E. less stimulating to the central nervous system than epinephrine or aminophylline. Because of low toxicity, it is a drug especially valuable to children. Status asthmaticus may be reduced when other measures fail Status asthmaticus patients inject one to two cc. intramuscularly at intervals of 20 or 30 minutes until an attack subsides. In rare instances of nervous reaction the first dose should contain 0.1 or 0.2 cc. less. Intravenously 20 cc. may be injected at the rate of two to five cc. per minute. It is the hope that this new substance will stand up under trial as more drugs are needed in the care of this distressing disease.

Propylthiouracil for Hyperthyroidism. The treatment of thyrotoxicosis with Propylthiouracil is simple, permanently effective, and without toxic effect. After analysis of 100 cases, Edwin B. Astwood, M.D. and Willard B. Vanderlaan, M.D. of the Joseph H. Pratt Diagnostic Hospital, Boston, Massachusetts, affirm that drug fever and agranulocytosis, serious complications of thiouracil, are unknown with this newer remedy. Prior iodine in any form may greatly delay the therapeutic benefit. Symptoms may recede after adequate dosage in a few days, but some patients require several months for complete disappearance of the disease. Hospital care or operation is almost never needed. Most patients continue at work during therapy. For at least six months after health returns, a maintenance dose of 75 mgs. and later 50 mgs. is administered daily. Long continued medication is not harmful. Enlargement of the thyroid gland or symptoms of myxedema indicative of excessive amounts of the drug are quickly corrected by adjusting the dosage. Exophthalmus is most effectively reduced by complete control of thyrotoxicosis. It is hoped that complete substantiation of this enthusiastic report is forthcoming.

Radio-Isotope Supply. Less than a week after Congress passed the Atomic Control Bill the War Department announced that relatively large amounts of radioactive isotopes would be made available to accredited research groups or educational institutions. The isotopes will come from the uranium piles of the Manhattan District. In announcing that isotopes will be available to science, the Army's surgeon general, Norman T. Kirk, declared: "Medical science would like to know more about how calcium and phosphorus are used in building teeth and uniting fractures, how iodine is used by

the thyroid gland, exactly what happens when the glands of internal secretion start malfunctioning, how the process of wound healing is carried out." Dr. Kirk went on to say that such questions and hundreds of others may be clarified by radioactive-isotopes.

The solution of the distribution problem is near with the formation of a committee of scientists, which includes Dr. Cornelius P. Rhoads of Memorial Hospital, New York City, and Dr. Cecil J. Watson of the University of Minnesota, Minneapolis.

The criterion for allocation is the maximum benefit to the national welfare in the following priority:

(1) Publishable research in fundamental sciences, including human tracer applications requiring small samples,
(2) Therapeutic, diagnostic, and tracer applications in human beings and publishable research in fundamental sciences requiring larger samples,
(3) Training and education,
(4) Publishable research in applied sciences.

Examining Boards in the Medical Specialties. An Examining and certifying board has been established in 15 specialties, and all these boards have been in operation since 1940. In 1934 the Council on Medical Education and Hospitals of the American Medical Association formulated minimum standards governing specialty boards. These 15 boards are fully approved. As the general public becomes more familiar with the full significance of certification by these boards, a dependable means of judging the proficiency of a physician will be available. The minimum qualifications being necessary for certification as a specialist include such requirements as graduation from an approved medical school, completion of an internship in a hospital approved by the Council, and a period of specialized training in a selected specialty. Each board publishes a booklet containing information regarding its organization, personnel, purposes, and requirements for certification. The Advisory Board for medical specialties was organized in 1933 and 1934 for coordinated graduate education, and certification of medical specialties in the United States and Canada.

An analysis of questionnaires returned by 21,029 medical officers pertaining to their future educational plans indicate that over 12,000 medical officers will seek specialty certification after the war. This gives some idea as to the emphasis that is being placed by physicians on the importance and significance of this newly instituted system. On March 1, 1946 there were 26,108 physicians certified by 15 boards in the specialties of Internal Medicine and Surgery; 3,906 and 2,620 respectively have received the certificate of these boards. The greatest number, however, in any one specialty certified was in Otolaryngology. In this specialty 38,086 have been certified by this board since it was organized in 1927. The oldest board in existence, Opthalmology, organized in 1917 has to date 2,490 members.

Tridione in Psycho-Motor Epilepsy. Those suffering from epilepsy today may well be thankful for the efforts of a host of scientists during the past 50 years. We need only contrast the cruel superstitious attitude of the past with the present enlightened efforts to normalize life and relieve their symptoms. Neither drugs nor diagnostic instruments, however, have been able to overcome certain forms of epilepsy, namely, the petit mal group and the psychomotor attacks. In the last few months reports of a new drug, Tridione, seems to promise an effective method for reducing the disabling effects of these last resistant symptoms. Lennox of Boston, a well known authority on this disease found this drug to be of exceptional merit in controlling the main varieties of petit mal. Lennox administered the drug from two to 15 months to 50 patients subject to frequent daily petit mal, myoclonic, or akinetic seizures, who had not benefited by previous medication. Of these patients 40 had few, if any, grand mal seizures, while in the remaining 10 grand mal attacks were frequent. In the group of 40 patients the Tridione treatment eliminated the petit mal seizures 28 percent during the period of study. In 52 percent the number of seizures was reduced to less than one-fourth, and in 20 percent the drug had little effect. Corroborative investigation is rapidly forthcoming. If the future of Tridione bears out the prophesy of its past, the drug will bring hope, comfort, and social stability to many thousands of children throughout the world.

Folic Acid. The more important components of the Vitamin B Complex that have been definitely established as essential to human nutrition are the following: Thiamin chloride, nicotinic acid, riboflavin. While it is recognized that pyridoxine and pantothenic acid are important members of the Vitamin B Complex, their value in human nutrition remains to be clarified. Lesser known factors are inositol, para-aminobenzoic acid, biotin, choline, and folic acid. Although the significance of these factors in human nutrition has not yet been fully determined, it is likely that they will be found to play an important role in human nutritive physiology.

Striking advances have been forthcoming in the past year in our knowledge and use of several of these lesser known factors. During the past year choline has been intimately connected with the therapy of cirrhosis of the liver. Much clinical and experimental evidence has been marshalled which strongly suggests that cirrhosis of the liver is a disease resulting primarily from numerous nutritional deficiencies. The determining factor in the animal diet appears to be casein which is important because of its content of methionine. This is a lipotrophic agent with the ability to mobilize fat in the liver, and when given in adequate quantities capable of preventing experimental dietary hepatic injury. Its activity has been shown to be due to its choline content. Choline and cystine likewise appear to have lipotrophic activity and have been used successfully in the treatment of cirrhosis. In the absence of these substances or if they are present in insufficient amounts, lipid or fat accumulates in the liver with a corresponding decrease in serum lipid. If, therefore, it is possible in early cases or even in moderately advanced cases to mobilize the fat already deposited in the liver and to prevent further deposition, the disease may be arrested, and liver function may even improve.

Folic acid is one of the latest factors of B Complex to be isolated. Its importance has recently received great emphasis in the demonstration by Spies and his associates of the Hillman Hospital in Birmingham, Alabama that it is a potent antianemic factor in certain types of macrocytic anemia in relapse. Spies states that he has no hesitancy in making the statement that folic acid, the synthetic Lacto Bacillus Casei factor, serves this function and performs a specific function in the maturation of the various cells of the bone marrow and has other obvious profound effects in our body. A further advance of great importance which assisted materially in the completion of this study was the development of a crystalline folic acid apparently

identical with this L. Casei factor by Angier and his associates of Lederle Laboratories. The exact minimum and optimal doses of folic acid have not been determined but studies at present indicate that there is some variation from patient to patient. The administration of as much as 400 mgs. daily has not caused any untoward symptoms. A daily dosage of from 5 to 10 mgs. parenterally or 10 mgs. by mouth will often produce a maximum hemapoietic response. The subjective and objective improvement that follows the administration of folic acid in persons with macrocytic anemia in relapse is similar to that which follows liver extract therapy. There is a tremendous upsurge of well being, increase in strength and vigor, a return of appetite, and the desire to walk about. There seems little basis for reasonable doubt now but that a valuable new anti-anemic substance is available.

Rutin. In 1936 Szent-Gyorgi and his associates prepared an extract of lemon peel which reduced capillary fragility and decreased capillary permeability. The active constituent was postulated to be a flavone derivative, but the exact nature of the active constituent was not determined. Chemical consideration suggested the hypothesis that rutin should possess the physiologic properties of the lemon peel extract, citrin, or crude hesperidin. Rutin occurs in many plants but is most successfully extracted from buckwheat leaves, and blossoms at a certain stage in the growth of the plant. It is isolated as a pure substance and has, at least, ten times the activity of crude hesperidin. It may favorably decrease capillary fragility as indicated by preliminary trial in a high percentage of cases when administered over a period of many weeks or months. This property has been reported particularly in hemorrhagic conditions associated with hypertension. It is not, however, a remedy for hypertension and has no possible effects on this disease except probably to fortify the capillaries to withstand the increased pressure of hypertension and thus to reduce the incidence of hemorrhage. Rutin has been found to be of negligible toxicity and devoid of cumulative action with no allergic activity. Premature and inaccurate publicity of the lay press has lead to the mistaken belief that rutin will reduce high blood pressure. No such results are actually possible.

Streptomycin. This year has seen the release of streptomycin for use in civilian practice of medicine by the Civilian Production Administration. This substance is an antibiotic of relatively slight toxicity produced by certain strains of streptomyces griseus when they are grown upon suitable media. The material is supplied in ampules containing 0.5 to 1 gm. each. There are two salts in common use, streptomycin hydrochloride and streptomycin sulfate. They are both readily soluble in small amounts of sterile pyrogen free water or normal salt solution. This material was discovered by Schatz, Bugie, and Waksman during the course of a systematic program devoted to the study of antibiotic material begun in 1939. It was the most promising of seven such substances. It is much more stable than penicillin in the presence of heat and intestinal contents. It is readily diffusable in the human body except in the cerebral spinal fluid and poorly absorbed from the intestinal tract. When injected parenterally it is rapidly excreted in the urine. It undergoes relatively little change in the body. Toxicity of streptomycin varies according to the method of manufacture. In general, more purified preparations are less toxic. Space does not permit the including here the indications for the use of streptomycin. A report prepared by Dr. Chester S. Keefer, chairman of the committee on chemotherapeutics and other Agents of the National Research Council contains a complete summary of the knowledge to date concerning the use of this material. Particularly gratifying is the fact that this material seems to be effective in the treatment of tularemia, meningitis caused by Hemophilus Influenzae and in respiratory tract infection due to the Friedlander's bacillus. Studies on experimental tuberculosis in animals warrant investigation of streptomycin in tuberculosis in the human being. Clinical studies are in progress at this time. The evidence to date has not established the place of streptomycin in the treatment of this disease. That it represents an important weapon in the treatment of other hitherto resistant infections seems certain.

Progress in Vitamin Diseases. One significant development in the field of vitamins recently has been the appearance of a report by the Council on Foods and Nutrition of the American Medical Association of an outline of the changes in the body resulting from vitamin deficiencies and their effective treatment. The signs and symptoms given in the outline represent current authoratative opinion with regard to the stigma of vitamin lack. The table includes a statement of the stigmas and symptoms associated with deficiencies of Vitamin A, thiamin, riboflavin, niacin, ascorbic acid, Vitamin D, and Vitamin K, together with a statement concerning the treatment of each deficiency. Deficiencies of several vitamins, notably biotin, pyridoxine, pantothenic acid, and Vitamin E are not accompanied by stigmas which can be recognized at present. This report goes on to say that the subject is in the stage of fluidity and development which probably will necessitate early revision or amplification. Particularly is this true of the diagnosis and treatment of deficiency of folic acid. This vitamin has been prepared in isolated form so recently that its consideration here is omitted. Vitamin deficiencies commonly encountered in clinical practice are multiple. Scrutiny of the dietary history has indicated that several of the stigmas listed are present. In presenting the syllabus the Council directs that emphasis be placed on the view that vitamins must never be relied on as a substitute for the regular consumption of an adequate diet.

Vitamin B Complex. Intensive studies have established that Vitamin B represents the group of water soluble, but otherwise unrelated dietary factors closely associated in nature. For practical purposes this group has been termed, the Vitamin B Complex. At least, a dozen separate factors, nine of which are available in crystalline form, make up the Vitamin B Complex. It is likely that other factors are as yet to be discovered.

Hyperthyroidism. For many years investigators have been seeking a satisfactory method for the treatment of hyperthyroidism by non-surgical means. Prior to 1923 Means and Holmes showed that irradiation of the thyroid by means of x-ray would definitely cause a remission of the disease in some cases. In their study about a third of the patients were cured by external irradiation, another third improved, and the final third was not greatly affected. Because of the lack of satisfactory criteria by which one might select those patients in whom hyperthyroidism might be expected to respond to x-ray treatment, this form of therapy gradually lost popularity and now is only occasionally employed. A new method of irradiation of the thyroid gland was made possible by the production of radioactive isotopes of iodine, a substance which is normally

picked up from the circulating blood and stored in the thyroid gland.

Induced radioactivity was first discovered in 1934, and in that same year Fermi in Italy prepared radioactive isotopes of iodine. Because the thyroid absorbs iodine selectively, it seemed likely that beta rays from iodine rendered radioactive would have a greater radiation effect than that derived from roentgen rays delivered through the skin and overlying tissues.

Hertz, Roberts, and Evans, in 1938, first used radioactive iodine to study the physiological function of the thyroid gland. In 1942, Hertz and Roberts made a preliminary report on the treatment of a small group of patients with radioactive iodine followed by ordinary iodine for a period of several months. In 1946, Chapman and Evans reported upon the treatment of a series of 22 patients by means of radioactive iodine alone in considerably larger doses than those given originally by Hertz and Roberts. The study of Chapman and Evans represents a continuation of the work of Hertz and is so encouraging as to warrant rather full discussion.

Only patients with classical symptoms of hyperthyroidism were treated. All had a definite goiter. No supplementary form of treatment was used. The radioactive iodine was prepared in the Massachusetts Institute of Technology cyclotron, by the nuclear bombardment of metallic tellurium. It was administered by mouth—"simply a drink of what tastes like rather stale water." Since the use of low doses of radioactive iodine was thought to be responsible for the failure of treatment in some patients in Hertz's series, Chapman administered considerably larger doses, averaging between 40 and 50 millicuries per patient. The largest single dose given was 79 mc. or 0.8 mc. per estimated gram of thyroid tissue. Concerning the result of treatment in this group of 22 cases, treated over a three-year period, Chapman and Evans state that "there are good results, surprising effects, and some poor results and disappointments." In 21 of the 22 cases, the goiter disappeared. Of 12 patients treated before August 15, 1944, eleven are well and show no signs of toxic goiter, while the twelfth continues to be mildly thyrotoxic. Of the ten patients treated since that date all have made a good response to treatment, although in one patient the basal metabolic rate continues to be above normal. In the successfully treated patients there has been increased sense of well-being, a gain of weight, a decrease in the size of the goiter, persistent fall in the basal metabolic rate, and a diminution of the abnormal eye signs associated with hyperthyroidism. Mild toxic reactions to the large doses of radioactive iodine, resembling roentgen ray sickness, were observed in six patients. The average length of time for the complete response to the radioactive iodine treatment was about seven or eight weeks.

Chapman and Evans conclude: "In hyperthyroidism orally administered doses of radioactive iodine . . . are concentrated largely in the thyroid gland. The beta rays from the radioactive iodine deliver within the thyroid an internal radiation which is physically similar to roentgen radiation. . . . Patients who had not responded to other forms of treatment or have been sensitive to iodine or thiouracil have responded well to radioactive iodine. . . . Ordinary iodine is not necessary with radioactive iodine treatment. We believe that therapy with radioactive iodine can be added to the growing list of medical methods for the control of thyrotoxicosis." (*J. A. M. A.*, Vol. 131:86, 1946.)

It is obvious that the series of patients treated is too small and the duration of time since treatment too short to permit any final conclusion to be drawn. The possibility of recurrence of hyperthyroidism, of the development of malignant changes in the gland, and of the appearance of signs of damage to adjacent structures such as the parathyroid gland must be considered. It seems safe to state, however, that this method of treatment is a promising one and that further trials with it are certainly indicated.

Thiobarbital in the Treatment of Hyperthyroidism. Thiobarbital is reported to have antithyroid activity similar to that of thiouracil. In a 16-months' study of thiobarbital in the treatment of 30 cases of hyperthyroidism, Dr. E. B. Astwood in the Journal of Clinical Endocrinology reports drug's activity was estimated to be twice that of thiouracil in inhibiting the function of the thyroid gland, but the toxicity was greater when the minimum effective dose was exceeded. Total daily doses of from 0.1 gm. once or .05 gm. twice daily. When daily doses of 0.2 gm. were exceeded drowsiness occurred, suggesting a cumulative effect of the drug. Thiobarbital seemed to be eliminated more slowly than thiouracil, although the drug fever, which occurred in six patients, was apparently benign in effect, and the drug could be continued in those individuals. Agranulocytosis, hepatic disease, early myxedema were also complications. While the drug does seem to have some definite effect, its toxic reactions seem too great at present to warrant general use of this drug without exercising great care.

Stricture of the Esophagus. The problem of the treatment of extensive cicatricial obliteration of the esophagus following extensive chemical burns has long been a difficult one. Reliance has usually been placed upon repeated dilatation of the constricted area by bouginage or if this effort proves to be unsuccessful, upon gastrostomy. Unfortunately, dilatation frequently has to be carried out repeatedly and the procedure entails the risk of producing a perforation of the esophagus. By making an artificial opening into the stomach through the abdominal wall (gastrostomy) it is possible to maintain the nutrition, of these unfortunate individuals, but since they are usually unable to swallow saliva, their lot is often a miserable one.

It has previously been reported in this review that the Russian surgeon, Yudin, has had a certain measure of success by substituting a segment of small intestine for the scarred area of the esophagus. (See 1944 YEAR BOOK, p. 377.) Recently, Richard H. Sweet of Boston, has described the successful employment in three cases of a new surgical procedure which seems both safer and more physiological than the operation of Yudin.

What Sweet has done, essentially, is to apply the technic which he developed for the treatment of carcinomas of the mid-thoracic esophagus to the treatment of extensive cicatricial obliteration of the esophagus. In this procedure, the thorax is widely opened, the diseased area of the esophagus excised, the stomach mobilized by dividing all of the arteries which supply it with blood except those at its distal end, and then the mobilized esophagus is brought high into the chest. The divided proximal end of the esophagus is implanted into the anterior wall of the stomach which is then fixed to the chest wall. In this fashion, the stomach is made to become a thoracic organ instead of an abdominal one. Interestingly enough, none of Sweet's patients in whom a procedure of this type has been carried out has had any serious deleterious effect upon the

functioning of the heart or the lungs produced by the transplanted stomach. All three operated on for stricture had relatively uneventful convalescences and all were able to swallow normally. In the third patient, a woman of 27, whose esophageal stricture had followed the ingestion of lye, the scarring and contracture of the esophagus was so extensive that almost all of the esophagus had to be removed, and the ultimate esophagogastric anastomosis done some distance above the thoracic aorta lay in the very apex of the chest.

Sweet's operation, in contrast to previous methods, can usually be carried out in one stage. Furthermore, it more nearly restores the normal continuity of the alimentary tract than have previous procedures, and it seems to represent a definite advance in the treatment of this difficult surgical problem. (*Surgery, Gynecology, and Obstetrics*, Vol. 82: 417, 1946.)

Deep Burns. Connor and Harvey of the Yale School of Medicine, described before the annual meeting of the American Surgical Association in April, 1946, a method of treating deep burns, the chief objective of which is to secure an early separation of the dead tissue in the wound from the living tissue. It has been recognized for some time that the crux of the problem in the treatment of the severely burned patient relates to the wound itself, that as long as the wound resulting from the burn remains open serious disturbances of the chemical state of the body and of the patient's general nutrition are apt to occur, and that with closure of the wound there is a marked improvement in the general condition of the patient. Prompt closure of the wound, then, becomes a prime objective in treatment. This is usually accomplished by the application of skin grafts to the wound, but in deep wounds, particularly in those which involve the entire thickness of the skin, delay in the application of grafts is usually necessitated by the slowness with which the dead tissue or slough separates from the underlying viable tissue As long as this layer of dead tissue is present, skin grafting is impossible.

Connor and Harvey found that the separation of the slough could be greatly hastened if the acidity of the surface of the wound was increased. After studying a large series of organic and inorganic acids, they found that pyruvic acid exhibited outstanding advantages. In their method, the burned area is thickly covered with a homogeneous, relatively thick paste consisting of a mixture of diluted pyruvic acid and cornstarch. This is enclosed within a moisture-proof dressing to prevent drying of the mixture. Having noted that separation of the slough proceeded from the margins of the wound, they found it advisable in large wounds to incise the slough in order to create more margins. Dressings are performed at intervals of 2 to 3 days, if possible, and in third-degree burns not involving tendon or thick fascia, the wound is usually ready for grafting within a week or slightly longer. The pyruvic acid mixture in the concentration employed by Connor and Harvey has the great advantage of not injuring islands of viable tissue which may remain in the burned area. The method may be employed, therefore, not only for burns involving the entire thickness of the skin (third degree) but also for burns involving only a partial thickness of the skin (second degree) and for mixed second and third degree burns. Connor and Harvey state, "More than 30 cases have been treated in this manner, many of them with multiple wounds. The results have been similar to those previously described in the experiments in animals. The layer of dead tissue separates rapidly, and living islands of skin survive in those areas in which the full thickness of the skin has not been destroyed in the burning. The deep wounds are then acceptable for immediate grafting, and in the more superficial wounds the islands of viable epidermis regenerate. All areas of the mixed clinical burn may thus be treated under the same dressing. The ultimate objective of treatment in deep burns, namely the early closure of the wound, can thus be easily achieved." (*Annals of Surgery*, Vol. 124: 799, 1946.)

Renal Failure. Since 1914 numerous studies have been carried out in an effort to perfect an artificial kidney which could remove from the blood the abnormal accumulation of metabolic products which follow injury to the kidney and result in anuria and uremia. The hope of the studies was that the normal excretory function of the kidney might be carried out in some other fashion, thus providing the time necessary for the repair of certain types of acute renal injury in which irreparable damage to the kidney has not occurred. Two common types of more or less self-limited acute renal injury are, (1) that which accompanies the administration of incompatible blood, and (2) that seen occasionally after the administration of sulfonamides.

In all the experimental studies an attempt was made to remove the abnormal metabolic product by dialysis. Numerous methods were employed, including the use of collodion and, later, of cellophane tubes immersed in a water bath into which the arterial blood of the animal was led and, after dialysis of its abnormal constituents through the permeable membrane, then returned into an appropriate vein. As early as 1923 it was found that the peritoneum lining the abdominal cavity of the living animal was an efficient dialyzing membrane and that if fluid was placed within the peritoneal cavity and then removed, significant amounts of nitrogenous waste might be removed. It was not until this year, however, that Fine, Frank, and Seligman of the Beth Israel Hospital in Boston developed a practical method for the irrigation of the peritoneal cavity in certain cases of acute renal failure and described its successful employment in man. (*Annals of Surgery*, Vol. 144:857, 1946).

In their method, a sterile irrigating fluid flows by gravity through an inlet tube of perforated stainless steel which previously has been inserted through one of the flanks into the peritoneal cavity under local anesthesia. In the opposite flank, the outlet tube consists of a stainless steel sump drain attached to a constant suction line. This irrigating fluid contained inorganic salts and dextrose in amounts approximately equal to those found in human plasma and, in addition, heparin to prevent the formation of fibrin clots and the formation of peritoneal adhesions and penicillin and sulfadiazine to minimize the possibility of the development of peritoneal infection.

In the first patient studied, a woman of 49 with ureteral obstruction due to an advanced carcinoma of the cervix and with clinical signs and symptoms of uremia, it was shown that continuous peritoneal irrigation could be carried without discomfort and without the production of peritonitis and that it could rapidly reduce the blood level of nitrogenous substance to normal, and simultaneously correct the uremic state. Because of the nature of the disease, however, uremia recurred when irrigation was discontinued and the patient died a month and a half later. Of the three subsequent cases, in two the anuria resulted from incompatible blood trans-

fusions and in the third from sulfadiazine therapy. In each instance, it was demonstrated that peritoneal irrigation could remove nitrogenous waste products from the blood rapidly enough to eliminate the uremic state. In the second patient, death occurred from multiple pulmonary emboli after a significant return of kidney function had appeared and after the patient seemed to be convalescing.

The third patient, a man of 51, with anuria of five-days' duration following sulfathiazole therapy, was entirely relieved of his uremic symptoms. On the fourteenth day urine output began again and increased steadily thereafter and the patient left the hospital in good condition seven days after the peritoneal irrigation had been discontinued. The fourth patient, whose renal damage came from incompatible blood, died on the seventh day of peritoneal irrigation, apparently as a result of incorrect managament of water-balance problems; indeed it seems that regulation of the content of the irrigating fluid and of the fluid administered by vein is perhaps the chief problem which confronts anyone who would use this method of treatment.

The authors state, "The foregoing experiences show emphatically that this method is still in the experimental stage. What is so far established is (1) that a properly performed peritoneal irrigation can eliminate all clinical and chemical evidence of the uremic states; (2) that significant improvement can be achieved within 36 to 48 hours; (3) that the total time required will vary with the duration and severity of the uremia, degree of saturation of the tissues with retained products, degree of dehydration or edema, the nutritional state, food intake, the rate of protein catabolism, the presence of associated disease and the rate of efficiency or peritoneal irrigation; (4) that irrigation will not injure the peritoneal structures; and (5) that the efficiency of irrigation so far as blood urea clearance is concerned does not diminish with time and exceeds the minimal degree (10 percent to 15 percent) of renal excretory function necessary to avoid reaccumulation of nonprotein nitrogen or urea."

Peritoneal irrigation as described by Fine, Frank, and Seligman, while yet beset with many practical difficulties, certainly gives promise of being an important method of treatment in certain common types of acute reversible renal injuries. This reviewer is acquainted with its successful employment in an as yet unreported case in his own community and has no doubt that at the present time trial of this method is being carried out in numerous centers.

Treatment of Peptic Ulcer. In 1943 Lester R. Dragstedt of the University of Chicago made a preliminary report on the treatment of ulcer of the stomach and duodenum by section of the vagus nerves to the stomach. The aim of this procedure was to abolish the effect of nervous stimuli on gastric secretions and the results of the operation in the group initially treated were excellent. Experiences accumulated since 1943 by Dragstedt and by others, notably Moore of the Massachusetts General Hospital and Grimson of Duke University, have shown that this operation is of great value in the treatment of certain types of peptic ulcer and indeed that the entire surgical approach to the treatment of peptic ulcer may possibly have to be modified.

The rationale of the operation of vagus section may be briefly outlined. While the cause of peptic ulcer is not known, one of the chief abnormal responses in the ulcer patient seems to be an excessive secretion of acid in the absence of the normal stimulus of food and it is felt that the hypersecretion and hyperacidity of the fasting stomach in ulcer patients is largely determined by nervous stimuli. It has been known since the classic experiments of Pavlov many years ago that division of the vagus nerve to the stomach abolishes this neurogenic phase of gastric secretion. The operation of vagotomy in man, then, is aimed especially at obtaining a lowering of the acidity of the stomach during most of the 24-hour period when food which would normally neutralize the acid is not in the stomach.

Sporadic efforts in the past to treat peptic ulcer in man by vagus resection were not very successful, probably because complete division of all the fibers was not obtained. That the vagus nerve might be divided without causing any marked disorder of gastric, pancreatic, or hepatic function or of the absorptive ability of the small bowel has been shown by the fact that patients have well tolerated removal of the lower portion of the esophagus for cancer, an operation in which the vagus nerves are of necessity completely divided.

Following vagotomy, certain definite changes occur. The most striking of these, from the clinical point of view, is the almost uniform and immediate relief of pain. The patient awakes from anesthesia and states that the ulcer pain is no longer present. That this relief is not a result of anesthesia from vagus section is shown by the fact that distention of the stomach with a balloon still produces a normal pain response. The actual mechanism of the relief of pain is not clear. In most cases, healing of the ulcer occurs in a week or ten days. When studied by x-ray the stomach, following vagotomy, is sluggish and empties very slowly. Fortunately, in the absence of real obstruction at the pylorus, this delay in emptying seems to cause little clinical difficulty. Studies of acidity following vagotomy show that during most of the day there is little or no free acid in the stomach. The secretion during the fasting stage is also greatly diminished.

The clinical results have been strikingly good Dragstedt stated in January 1946, "Except for one woman with a duodenal ulcer in whom subsequent testing indicated that a complete vagotomy was not secured, the result has been immediate, complete and permanent symptomatic relief, gain in weight, and in most cases objective evidence of healing of the ulcers. There have been no recurrences to date, no hemorrhages and no perforations. Fifteen of the patients required gastro-enterostomy at the time of the vagus section or subsequently because of cicatricial pyloric stenosis." (*Minnesota Medicine*, Vol. 29:597, 1946).

Moore stated in February 1946, "Follow-up on all of these patients has been carefully carried out and most of the patients have been grateful for their treatment and have been cooperative in returning for studies. During these return visits, no recurrence has been observed, with one exception consisting of a tiny duodenal fleck seen approximately eight months after operation, which again disappeared and was not accompanied by any return of symptoms. Following operation, as a general rule, the patients were allowed to eat and drink anything they wished, including alcohol and coffee, since it was believed that the operation would not be put to an adequate test if a patient was carried along on conscientious medical therapy." (*New England Journal of Medicine*, Vol. 234:241, 1946).

Section of the vagus nerve is most easily accomplished by an approach through the chest

where it is usually a relatively easy matter to identify, isolate, and excise the nerves from the level of the root of the lung to the diaphragm. In fact Moore goes one step farther, opens the diaphragm and removes the lower end of the nerves to the point at which they enter the walls of the stomach. The nerves may also be divided by the abdominal route by mobilization of the lower end of the esophagus, and where a concomitant abdominal procedure is necessary, as for instance in cases with obstruction at the pylorus of the stomach where an operation for relief of obstruction is required, vagotomy is usually done through an abdominal incision. It is apparently a reasonbly safe procedure. Dragstedt, in January 1946, reported one death in 54 cases.

The operation, of course, would be valueless in the acute complications of ulcer, such as perforation or massive hemorrhage. Probably it should be used with caution in cases of ulcer of the stomach, because of the clinical difficulty in differentiating between benign and malignant ulcer of the stomach. In the presence of marked pyloric obstruction, a supplementary gastro-enterostomy is usually required. It seems to be especially useful in the treatment of recurrent ulcerations following previous operations on the stomach, and it may find its greatest value in the treatment of the large group of young or middle-aged persons with a long history of peptic ulcer who do not respond satisfactorily enough to a medical regimen to lead a normal life. It should be pointed out that the operation has been employed extensively for only three years and that it is as yet too early to be wholly sure what of the end results. It must be said, however, that up until the present the results of vagotomy have been surprisingly good.

WILLIAM H. POTTS.

MELLON INSTITUTE. The aim of Mellon Institute is the creation of new knowledge by scientific investigation for the benefit of mankind, in accordance with the institution's definite fellowship system. According to this procedure the researches are restricted to major problems of the pure and applied sciences and particularly chemistry—problems that require protracted periods of time for solution by specialists. The Institute was founded by Andrew W. Mellon and Richard B. Mellon in 1913 and is located at 4400 Fifth Avenue, Pittsburgh 13, Pennsylvania. It is a non-profit institution.

The industrial research of the Institute is organized on a contract basis, the problem being set by a person, firm, or association interested in its solution, the scientific worker being found and engaged by the Institute, and an industrial fellowship being assigned for a period of at least a year. Each holder of an industrial fellowship is given broad facilities for accomplishing the research entrusted to him and all results belong exclusively to the donor of the fellowship. Only one investigation is conducted on a specific subject at any one time and hence there is no duplication of the research activities of the fellowships in operation. At present there are 82 of these industrial fellowships, which employ 500 scientists and engineers. The projects range from ferrous metallurgy and refractories to novel pharmaceuticals or medicinal agents, synthetic rubber, new plastics and textiles, and improvements in foods and other essential commodities. All the work during wartime related to urgent military problems. The Institute's department of research in pure chemistry is concentrating on the synthesis of new chemotherapeutic agents. There is also a strong department of research in chemical physics. Industrial Hygiene Foundation has its headquarters in the Institute.

MENNONITES. A religious group founded in Switzerland in 1525 in protest against ecclesiastical rule and rigid liturgy. In the United States the Mennonites first settled at Germantown, Pennsylvania, in 1683, ultimately dividing into 17 bodies.

MERCURY. Mercury production in the United States in 1946 receded sharply from the wartime rate, but was more than fifty percent higher than the average of the period immediately preceding the outbreak of war in Europe. Sharply sensitive to price, mining activity was restricted to about fifteen principal mines compared to approximately fifty during peak wartime activity. Total mine production for the year was approximately 25,000 76-pound flasks (1945: revised: 30,763 flasks). The major proportion of the total output came from long-established mines in California, with the balance from Idaho, Nevada, Oregon, Arizona and Alaska.

Consumption totalled about 30,000 flasks, early estimates indicated, with pharmaceuticals, chemicals, electrical apparatus, batteries, paint, disinfectants, and fungicides among principal uses. In 1945, 63,900 flasks were used.

Imports, principally from Mexico and Spain, fluctuated sharply, with nearly 14,000 flasks arriving in the first nine months of the year. Italy was a source of imports for the first time since 1940.

Prices averaged about $100.00 per flask, levelling off after declining from $196 per flask in 1943.

CHARLES T. POST.

METEOROLOGY. January-May. During the first four months of 1946, the mean monthly temperatures averaged above normal over most of the United States. Only in New England and in portions of the southwestern and Pacific Coast states was the mercury's average position at or below normal. The west central and northern Rocky Mountain states were, on the average, 6°–8° Fahrenheit warmer than usual. In the matter of precipitation, the southern states, from Texas eastward to Georgia and Tennessee, experienced above-normal amounts, as did other scattered regions across the northern part of the country. Generally subnormal precipitation was received throughout the entire western half of the country; the Southwest was particularly dry.

In January, scattered floods of record-breaking proportions occurred in many of the East Gulf States as a result of the heavy rains that fell over the area from the 5th to the 10th of the month. The upper Mississippi and Missouri Basins and the Ohio Basin also experienced severe and damaging floods, in which ice action aggravated the overflow along many streams. During February, severe floods again visited Georgia, Alabama, and Mississippi, with several exceeding those that occurred in January. Moderate floods were experienced in Georgia, Florida, Minnesota, the Dakotas, and Michigan during March. The heavy snow cover left by the winter storms in the northern tier of states from Minnesota to Maine was melted and carried to sea with only minor floods resulting, due to the generally warm and dry conditions prevailing in the critical areas during March. There was no extensive flooding in April.

On January 4, a series of tornadoes took 33 lives and caused over $2,500,000 property losses in Anderson, Angelina, Nacogdoches, Leon, and Hunt counties in northeastern Texas. It is estimated that 300 persons were injured and 1,100 homes and

other buildings destroyed or damaged as a result of these storms. Tornadoes on the evening of the 6th killed 12 persons and caused about $250,000 damage in several areas in northwestern Mississippi. During February 5–7, a blizzard swept the Dakotas and Minnesota, disrupting all normal activities. In the eastern part of South Dakota, the wind blew as high as 50 m.p.h. and piled up snow drifts from 5 to over 7 feet high. Eastern North Dakota and the west-central and northwestern counties of Minnesota were covered with sleet, snow and glaze. Snow drifts as high as 18 feet were reported between Morris and Appleton, Minnesota, and in the vicinity of Fargo, North Dakota, the blizzard is reported to have been one of the most severe of record. Trains were delayed at Fargo for almost 3 days, roads were closed for periods up to a week in the stricken area, and in the Minneapolis–St. Paul district light glaze caused many accidents to pedestrians and motorists. $1,000,000 was the property toll exacted by the tornado which struck Ardmore, Oklahoma, at 3 a.m. on February 13. Only one person was killed, but 15 suffered injuries and 200 were rendered homeless. At least minor damage was done to some 1,700 buildings in the city. On March 8, southern Wisconsin experienced heavy snow and high wind, causing a transportation tie-up which at Milwaukee was the worst of record. Heavy snow and high wind also struck at areas in New Mexico and Wyoming on March 14–15; on March 20–21, Wyoming again experienced heavy snow. Several hailstorms, severe thunderstorms, and two tornadoes were reported from widely scattered regions in the Midwest and Southeast during the latter half of the month. In all of these, loss of life totaled 10 and property damage about $575,000. The twenty severe local storms reported for April caused no loss of life and approximately $2,500,000 property damage. The most noteworthy was the thunderstorm which, moving southeastward from Tennessee on a path 20 miles wide and 150 miles long, buffeted Madison, Marshall, Etowah, and Calhoun Counties, Alabama, from 4.30 to 8 p.m. on the 7th. The value of property destroyed is estimated at $2,000,000; much livestock was killed by hail.

May-August. With exceptions to be noted, the four spring and summer months (May-August) were characterized in general by above-normal mean temperatures over the western half of the country and sub-normal ones in the eastern. May was cool for all except the Atlantic and Gulf coasts and the region west of the Continental Divide; June saw the monthly means rise slightly above normal in all but the Northwest, Northeast, and Southern States; during July only the Southeast was sub-normal; August found the whole northern and northeastern sections of the country on an average 2° Fahrenheit cooler than usual.

The precipitation regime was far more irregular. Rainfall was generally light over the western half of the country during May and June: no measurable May precipitation was observed at several stations in southern Arizona. From the Mississippi Valley eastward, rainfall was generally greater than usual in both months. During May, severe floods occurred in north-central Pennsylvania and western New York, where all previous flood stages of record were surpassed on many of the headwater tributaries of the Susquehanna River. Persistent heavy showers from the 5th to the 22nd of the month were followed by a heavy downpour that began after noon of the 26th and continued for 30 hours or more, at times reaching cloudburst proportions. The resultant floods which occurred during the last few days of May took several lives and caused property damage amounting to millions of dollars. Soil erosion was exceedingly heavy, and numerous slides and washouts took place in the flood area. In June, floods over relatively small areas as the result of intense local storms were reported in northern Wisconsin ($3,000,000 damage), Iowa, and Wyoming (a severe flash flood). July-August precipitation was spotty. The Southwest received a welcome above-normal rainfall, breaking the drought condition which had previously gripped it. Most of the central third of the country was dry during July, but rainfall averaged above normal along the Atlantic and Pacific coasts, in the Gulf States, the Southwest, and Montana and the Dakotas. August was dry on the Pacific coast and across most of the northern half of the country. Precipitation in the rest of the country was roughly above-normal. Rain in about twice the usual amounts fell on the New England coast and in sections of Florida, Texas, Arizona, Colorado, Missouri, and Illinois. As in July, there was no general flooding; but during both months a number of local floods occurred throughout the country. Considerable damage was caused by such a flood in the vicinity of St. Louis, Missouri, about the middle of August.

Crop loss and property damage resulting from the over 100 severe local storms (including tornadoes) reported during May exceeded $10,000,000. The death toll was 19. Noteworthy are:—the hailstorm of the afternoon of the 10th which caused $1,000,000 crop loss in a fruit-growing area near Grand Junction, Colorado; the Florida wind and rain storm of the 20th and the San Antonio, Texas, wind storm of the 29th, which together caused $2,250,000 damage; and the northeaster of May 27–28, which blockaded Boston harbor. The 120 storms reported for June caused 4 fatalities and over $13,750,000 property damage. A heavy rainstorm on the 2nd in western and northern West Virginia was responsible for crop losses in excess of $1,320,000. One of the severest thunderstorms ever encountered at Boston, Massachusetts, swept over the city and vicinity on the evening of the 8th, taking a toll of 3 lives and a property loss of $250,000. For 20 minutes on the afternoon of the 11th, the worst thunderstorm of record at Auburn, New York, brought winds estimated at 75 m.p.h. and left behind $1,000,000 worth of damages. Tornadoes twice struck Detroit, Michigan, once on the 17th and again on the 27th. In all, 44 persons were injured and at least $1,250,000 property damage caused. In addition, a weak tropical disturbance moved inland on the Texas coast near Port Arthur on the 16th, but did no damage. Approximately 110 severe local storms were reported during July. Deaths numbered 10; damages amounted to over $7,500,000. A $2,000,000 electrical storm struck Langley, South Carolina, on the 7th. An intense hail and wind storm on the 16th in the vicinity of Frazer and Circle, Montana, wreaked a crop loss of $1,400,000. On July 5–6 a tropical disturbance affected the area from Wilmington to Manteo, North Carolina, and produced the greatest 24-hour rainfall of record at the latter city, 7.84 inches. Gusts reached 50 m.p.h., but on the whole the disturbance was weak and caused only minor damage. When it moved out again over the Atlantic, however, its intensity seems to have increased, and on the 10th it was reported passing southeast of Newfoundland. Severe local storms reported for August numbered 60: they cost 13 lives and about $3,800,000. On the evening of the 17th, tornadoes struck at two towns in Minnesota.

egated body composed equally of laymen and ministers. Since reunion, bishops are elected by the Jurisdictional conferences. Within the United States there are 560 districts, supervised by superintendents, 21,463 pastoral charges and 40,264 preaching places. Abroad, in 50 countries, the result of missionary work, there are 7,425 churches, listing 870,000 members.

Major emphasis during 1946 was evangelism. The results were appraised by Bishop Edwin Holt Hughes (retired) of Washington, D.C. as "the most significant evangelistic effort in the history of American Protestantism." Incomplete figures indicate that 423,926 have been received from preparatory membership and on confession of faith and 403,808 by transfer during 1946. After removals by death, transfer and withdrawal there was a net gain of 346,379, the 1946 membership standing at 8,430,146. The year also showed 728 new or abandoned churches founded or reorganized.

Church (Sunday) school enrolment and attendance, shrinking since 1923, experienced a turn during 1945–46 when, like evangelism, it was made one of five objectives of a general forward movement, the Crusade for Christ. Not only did the recession stop, but an advance of 8 percent was recorded as the result of special, organized effort. Enrolment in 1946 was 5,147,508.

Giving increased markedly; the total raised for all purposes during 1946 being in excess of $150,000,000. Women, through their Societies of Christian Service, paid $9,005,779 for local work and $4,723,081 for their missionary and benevolent program. The Church itself gave $10,362,982 to World Service and conference benevolences. These gifts, together with other benevolent offerings, totaled $34,580,544. The Church continued to devote its communion offerings, together with other donations, to overseas relief.

A survey indicates that during the five postwar years Methodists will expend $100,000,000 on new and improved church property. During 1946 $25,016,417 was paid for building and improvement. Church and parsonage property was valued at $842,393,302 against which there was indebtedness of $18,209,805.

Representatives of annual conferences abroad, meeting in Central Conference sessions, recovered sufficiently from the war to have convened and exercised their power of home-rule in the election of bishops. The Philippine Islands Central Conference in March consecrated as bishop the Rev. Dr. Dionisio D. Alejandro. The Central Conference of Northern Europe, meeting in Gothenburg Sweden in April, elected the Rev. Dr. Theodor Arvidson. Germany Central Conference convened in November in Frankfort-am-Main and chose Dr. J. W. Ernst Sommer, theological seminary president, as bishop.

Bishop Titus Lowe of Indianapolis, Indiana was elected president of the Council of Bishops in March. Deaths during the year include Bishop J. Lloyd Decell of Jackson, Mississippi, Bishop Lorenzo H. King of Atlanta, Georgia and retired Bishop John L. Nuelsen of Madison, New Jersey. In China on February 4 Bishop and Mrs. Schuyler Garth, on an official visitation of mission stations, were killed in a plane crash.

MEXICAN CLAIMS COMMISSION, American. A Commission established pursuant to the provisions of the Settlement of Mexican Claims Act of 1942. Under this Act the Commission adjudicates claims and makes awards to claimants entitled to participate in the distribution of a lump sum settlement recently effected by the Department of State whereby the Republic of Mexico pays $40,000,000 to the United States in settlement of claims. Participating claims have originated over a long period extending from 1868 to 1940 and include claims relating to the expropriation of lands and mines, confiscation or destruction of personal property, injuries to individuals, and miscellaneous cases of alleged denial of justice. Chairman: Edgar E. Witt.

MEXICO. A North American republic. Area: 758,258 square miles. Population: 21,153,321 (1943). Capital: Mexico, D.F.

Mexico consists largely of a plateau of 8,000 feet average elevation bordered on the east, west, and south by mountains. Coastal lowlands extend along the Gulf of Mexico and the Pacific Ocean, and Yucatán Peninsula in the southeast is a vast lowland plain. Throughout the plateau area of northwestern Mexico and most of Baja California the climate is dry, with temperatures ranging from cool-temperature to hot. The southern part of the plateau region has a temperate dry-winter climate, which merges into tropical in the southeast and Yucatán Peninsula.

Population. Over half of the total population of Mexico are mestizos; 29 percent are Indians, and 17 percent persons of European descent. Population density is highest in the central highlands, lowest in the north and southeast. The three largest cities are: Mexico, 1,448,422; Guadalajara, 228,049; and Monterrey, 180,942.

Spanish is the official language, but some minority groups speak their native tongue and various Indian languages are spoken in rural areas. Roman Catholicism is the predominant religion.

In 1946, official estimates indicated that 35 percent of the adult population of Mexico was literate. In 1941 there were 23,191 primary schools with a total enrollment of 2,037,870. Excluding students in normal schools, 64,758 students were registered in 388 intermediate schools. Mexico has 13 universities.

Government. Under the Constitution of 1917, Mexico is a federal union of 28 states, 3 territories, and the Federal District. The Congress is bicameral, with a Senate of 58 members and a Chamber of Deputies of 147. Regular sessions begin on Sept. 1 of each year. The President is elected for a 6-year term and may not be reelected. He is aided by a Cabinet of 11 ministers. General Manuel Avila Camacho was elected President on July 7, 1940, and inaugurated on December 1, 1940.

Events. Mexico's presidential election year opened on a note of violence in Leon, State of Guanajuato, where Federal troops and thousands of citizens clashed when Ignacio Quiroz, mayorality candidate of the Government-supported P. R. M. (*Partido Revolucianario Mexicano*) party took office against the wishes of the citizens who voted overwhelmingly in favor of Carlos Obregon, independent candidate supported by the Sinarquist Union, a rightist movement.

The citizens of Leon, a stronghold of the Sinarquist Union, held an open-air mass meeting near the government Palace on New Year's Day after State Governor Ernesto Hidalgo installed Quiroz. The meeting was broken up by troops, but the next day saw a larger meeting accompanied by closed stores throughout Leon. Throughout the day, troops and civilians brushed as tension grew more electric and in the evening, troops fired on the demonstrators, killing about fifty and wounding about 300.

The affair aroused wide protests that prompted

quick repercussions. On January 4 Governor Hidalgo dismissed Quiroz and appointed a non-partisan municipal board. The responsible officers, Colonels Barron and Martinez were retired. The final act occurred on January 9 when President Manuel Avila Camacho requested Congress to remove Hidalgo from office.

The Mexican newspapers found tacit support in the dismissals to the charges of local election fraud. The *sinarquista* claimed martyrdom for the dead and Ezequiel Padilla, ex-Foreign Minister and rightist-supported candidate for president, made campaign speeches about the massacre victims who were "showing Mexicans the road of honor and duty."

The indignation at Leon was echoed in industrial Monterrey on January 11 where a crowd of 15,000 filed through the streets honoring the "martyred" of Leon and requesting President Camacho to remove Felix Gonzáles Salinas, the local mayor, supported by the P. R. M. Charges were made that local authorities prevented the followers of opposition candidate Manuel Barragán, a local industrialist, from voting. The demonstration was peaceful; the incident ended with opposition charging fraud and government replying that the conduct of the election was constitutionally correct.

The apparent success of the literacy campaign launched in August, 1944, as a temporary measure, encouraged President Camacho to draft a permanent literacy bill in mid-January for presentation to Congress. The bill urged every literate Mexican to teach one or more illiterate compatriots. Reports accompanying the bill showed that 1,073,000 illiterates were enrolled in "literacy centers" and 278,000 had passed literacy examinations up to December 31, 1945.

By the end of January campaigns and political lines for the July 7 presidential election grew more clearly defined. Leading candidate was government-sponsored Miguel Alemán, forty-five year old ex-Minister of the Interior, who was nominated on January 19 by Vincente Lombardo Toledano, proleftists labor leader, at the convention of the P. R. M. which, at the time, changed its name to the Party of Revolutionary Institutions (P. R. I.).

Opposing him was Ezequiel Padilla, backed by the Mexican Democratic Party and Catholic rightists, and Gen. Jesus Augustin Castro, who accepted the nomination of the National Constitutionalist Party on January 27.

As a possible measure to offset the effects of the Leon affair, the P. R. I. announced on February 1 that it would cease deducting "campaign contributions" arbitrarily from the pay envelopes of government employees.

By May, candidate Alemán predicted a landslide victory for himself. From all indications his optimism was well founded. He was a nationalist and repeatedly declared that Mexico would not yield any control of management or exploitation of oil fields to foreign interests. If any nation needed oil, he said, Mexico would be glad to cooperate and accept foreign capital to increase its output of oil. In numerous campaign speeches he convinced the people of his liberal, not extremist, views. This brought the wealthier classes as well as the working people to his support, for it allayed fears of state nationalization. The church, a powerful factor in Mexican politics, refrained from any commitment, a condition interpreted as acceptance of Alemán. Furthermore, Alemán was backed by the P. R. I. which virtually included all voters, especially since its reorganization in December 1945 when it enlarged its scope to include many syndicates that had adhered to the labor leadership of the C. T. M. (Mexican Confederation of Workers).

On domestic issues Alemán advocated wide industrialization and greater distribution of wealth; for as Mexico developed, her economy "should adjust itself to the norm of prosperity which will enable all classes to share in it." He preferred real estate and mineral wealth in the hands of nationals, and assured foreign capital of a legitimate profit. Speaking on foreign affairs, he favored cooperation with the United States and full participation in the United Nations.

Padilla, internationally respected as a diplomat, faced the problem of fighting Mexico's top political organization and vote-getting machine. He was further hindered by the label of being too pro-United States, a reputation gained by close association with the United States at the Chapultepac and San Francisco conferences. On May 31, Padilla said that the United States should withhold recognition of any Latin American government until convinced by observation that it represented the will of the people. However, the United States should not intervene in any election, he added. Padilla's statements were immediately used by the opposition which, in posters and newspaper advertisements, construed his remarks as a request for United States aid.

Elections for a new Congress, scheduled to convene on September 1, were held in conjunction with the presidential elections. The P. R. I., which held undisputed control of both the Senate and Chamber of Deputies, was also opposed by the Communists, Sinarquistas and Acción Nacional parties which ran no presidential candidates.

In the most peaceful election in Mexico's history more than 2,000,000 registered voters gave Alemán a 3-to-1 victory over Padilla. The new election law of December, 1945, aimed at promoting an honest election, and President Camacho's election eve radio plea for a peaceful election made for the unusual conduct of the election. All polling places were officiated by duly appointed guardians while Federal troops acted as a nation-wide police force.

Immediately after the initial election returns indicated a sweep for Miguel Alemán, defeated candidate Padilla and his Mexican Democratic Party claimed the election was a fraud. There were numerous charges that the ballot boxes were doctored. However, in contrast to the 1940 election which was accompanied by much rioting and shooting, the 1946 election was generally accepted as a good example for all future elections.

On August 3 Mario Lasso, former Consul General for Chicago, and Secretary General of the Mexico City Committee of Padilla's Party, was arrested on a charge of plotting to kill Alemán. From his cell Lasso purportedly sent a letter to Padilla explaining that he had been brutally mistreated and forced to sign a confession. Police officials denied the accusation but the affair, together with the cries of fraud, inspired protest meetings and stay-at-home strikes. The furor, however, soon evaporated as the political situation stabilized.

Mexican labor, a leading power behind Alemán's election, spoke out in the last days of August against the possibility that Alemán was surrounding himself with big business lobbyists who might veer him to the right. Fidel Velasquez, president of the Mexican Confederation of Labor (CTM), pointed out that it was necessary for labor to work closely with Alemán to prevent a reactionary cabinet and undue pressure from the moneyed classes.

During August Vicente Lombardo Toledano, president of the Confederation of Latin American Labor (CTAL), of which the CTM was affiliated, issued a call for strong labor unity against "imperialist attempts to dominate Mexico."

In his farewell address to the Mexican Congress on September 1, President Camacho reviewed his six-year term and asked that the principle of nonintervention, "which we consider basic in the inter-American system and fundamental in Mexican foreign policy be strengthened and regulated." Elaborating on the domestic conditions, he found the oil situation satisfactory with petroleum reserves estimated at 870,000,000 barrels. During his last year in office production of the wells increased from 38,000,000 barrels to 45,000,000, and the volume treated at refineries rose from 35,000,000 barrels to 42,000,000. Income from domestic sales totaled $80,400,000 and foreign sales amounted to $14,000,000.

Mexican agriculture was shown to be in an excellent position. In the field of land distribution the Administration gave more than 500,000 hectares to 15,400 farmers. The allotment of four to eight hectares per person which existed in 1942 was raised to from six to twelve on the day of the President's address. During 1945 agriculture contributed nearly $69,500,000 to a favorable balance of trade. The President predicted continued exports of wheat.

The high production in the oil industry was achieved despite labor difficulties. On September 2 all seven of Mexico's refineries were closed, for the first time since the Government took over the oil industry, because the workers insisted that the eighth hour of work be considered overtime and paid as such. Federal troops were posted around the refineries, but no disorders occurred. The strike ended on September 4 with the workers winning their demand. Efrain Buenrostro resigned as director of Pemex, the Government's oil administration, on November 27 and refinery workers announced a one-day strike on the same day in protest against a delay in equalizing salaries.

In his formal inauguration as President of Mexico on December 1, Miguel Alemán voiced his faith in the unity of the Western Hemisphere and the Good Neighbor Policy. Devoting most of his address to domestic affairs, the President promised a $300,000,000 irrigation program to reclaim 1,400,000 hectares (3,459,400 acres) of land, greater extension of credit to agriculture and industry and reforms in the fields of banking and income taxes. He also promised to seek an extension of women's suffrage to permit voting in municipal elections.

President Alemán appointed the following Cabinet:

Foreign Affairs—Jaime Torres Bodet.
Interior—Hector Pérez Martínez, who was Under Secretary in the outgoing Ministry of Primo Villa Michel
Treasury—Ramón Beteta, who was Señor Alemán's closest adviser and campaign manager.
Education—Manuel Gual Vidal.
Agriculture—Nazario Ortiz Garza.
Public Health and Welfare—Dr Rafael Pascasio Jamboa.
National Defense—Gen. Gilberto R Limón, who was Under Secretary to outgoing Gen Francisco Urquizo.
Communications and Public Works—Augustín García López.
National Economy—Antonio Ruíz Galindo, who is one of the nation's most important industrialists
Labor and Social Welfare—Andres Serra Rojas.
Acting Secretary of the Navy—Rear Admiral Luis Schauffelberger de la Torre
Attorney General—Francisco González de la Vega, who has headed the Federal Investigation Bureau.
Governor of the Federal District—Senator Fernando Casas Alemán, who was Under Secretary of the Interior under Señor Alemán and has remained a close adviser. Señor Casas Alemán is not related to the new President.
Chief of the Agrarian Department—Mario Souza.
District Attorney of the Federal District—Carlos Franco Sodi.
Secretary of Irrigation—Adolfo Orive de Alba. This is a new ministry, whose establishment indicates the emphasis President Alemán intends to place upon converting Mexico's arid acres into fertile lands. Señor Orive de Alba previously was Director of the Bureau of Irrigation.
Secretary of National Lands and Administrative Inspection—Alfonso Caso. This is also a new ministry

Within a week of the inauguration the bulk of President Alemán's agricultural legislation was submitted to Congress. The two most important aspects of the legislation were a Constitutional amendment guaranteeing the property rights of owners of less than 500 acres and a proposal to establish a national colonization commission to effect a resettlement program. The Commission would administer a fund, select sites, evaluate prospects, determine the area of land allotted to each colonist and provide the basic mechanical implements.

The constant labor-management difficulties in the oil refineries was treated by President Alemán on December 21 with an order dismissing fifty leaders of the oil workers' union, who were named responsible for the illegal work stoppage. On the same day Antonio Bermúdez, director of Pemex, submitted demands to the Federal Arbitration Board for reorganization of Pemex-union relationship. The Pemex demands would scrap all existing contracts, establish new wage scales and permit Pemex to hire non-union workers.

Mexican labor was assured by Toledano on December 23 that President Alemán's dismissal of the fifty leaders of the oil workers' unions was not to be considered a Government precedent or an example for private industry. On the following day military escorts were removed from oil trucks as the oil workers decided not to institute a strike.

Economic Development. Mexico's cost of living which had followed a steadily rising spiral through the war years reflected itself in statistics released in January showing the volume of currency in circulation, including sight deposits. On December 22, 1945 currency circulation stood at 4,265,400,000 pesos as against 3,551,800,000 in December, 1944 with an average monthly increase of 69,500,000 pesos between the two dates. Between April, 1945 and April, 1946, the cost of living had risen 62.32 percent, making a total increase since January, 1943 of 362.46 percent. During the period between May, 1945 and March, 1946 the price of cooking oil rose 66 percent, beans 65 percent, tomatoes 66 percent, milk 32.6 percent, lard 38 percent, sugar 54 percent, coffee 41 percent, and beef 16 percent.

The rising cost of living was accelerated by a scarcity of basic commodities including wheat, beans and corn. In April Mexico's request for the sale of 500,000 tons of wheat from the United States was refused by both Henry A. Wallace and former President Herbert Hoover on the grounds of Europe's more critical need of United States wheat.

By the beginning of 1946 investments in Mexican industry, which employed more than 700,000 workers, amounted to about $1,500,000,000, according to the official reports issued in February. The largest increase, compared with prewar years, was reported in the manufacturing industries, which absorbed more than 400,000 workers and $515,000,000 in investments.

With procedures opened for the settlement of British and Dutch loans to the Mexican National Railways in March, Mexico entered the final phases

of liquidating external indebtedness. Among the obligations met by the Government were $5,448,000 paid to American citizens for damages suffered in Mexico during the revolutionary period ending in 1920; $16,000,000 of the $40,000,000 debt to the United States for general and agrarian claims in accordance with the agreement of November 1941; $19,000,000 of the $29,000,000 debt to United States citizens and oil companies for oil properties appropriated in 1938, exclusive of the liquidation of other claims, which amounted to $9,900,000; and $776,400 paid to British subjects for damages in the Mexican Revolution. Beginning in 1948 Mexico will redeem bonds held abroad until final liquidation. On September 28 a fourth installment of $4,085,325 was paid to the United States on the $29,000,000 owed for the settlement of oil claims.

Relations with the United States. In reply to United States Ambassador George Messersmith's inquiry concerning labor leader Lombardo Toledano's statement that United States concerns were supplying arms to rightist political factions, the Mexican Government on January 5 said there was "no basis" for the charge and disavowed Toledano's statements.

Mexico blacklisted eight of the United States on February 16 after Washington requested an extension of the 1943 United States–Mexican agreement whereby Mexico supplied workers during the war years to alleviate the labor shortage in United States agriculture. Because of alleged discrimination and contract abuses, Colorado, Illinois, Indiana, Michigan, Minnesota, Montana, Wisconsin, and Wyoming were deprived of Mexican crop pickers. The United States' request stated a need for 50,000 workers.

The high tariffs and import controls imposed by Mexico during the closing months of 1945 were sharply criticized on February 12 in a speech by Merwin Bohan, economic counselor to the American Embassy in Mexico City. Voicing the attitudes of the United States Department of State, Mr. Bohan said that the controls hurt American exports in Mexico and encouraged an economic dislocation that would be reflected in increasing hardships created by artificial scarcities and the fostering of unsound industries. The desire of the Mexican government to nurture infant industries by subjecting thousands of items, only a fraction of which are manufactured locally, to import licenses, was attacked as excessive protectionism by Mr. Bohan.

Luis Quintanilla, Mexican representative on the governing board of the Pan American Union and former Mexican ambassador to the Soviet Union, caused his government no little embarrassment late in March when he stated that: "Real (Latin) American democracies would denounce Pan American ties if hemispheric policy should become involved in creating an English-speaking axis against our great Soviet ally." Mexico City newspapers interpreted the statement as a clear backing of the Soviet Union if any conflict occurred and Quintanilla was recalled by his Government for explanation.

On June 25 United States and Mexican delegations met at Mexico City to discuss measures intended to improve air traffic between the two nations. The meeting was called to define regulations and licenses to govern the various airlines which were engaging in increasing competition. The discussions made little progress for on July 13, Oswald Ryan, vice chairman of the Civil Aeronautics Board and chief of the United States delegation, announced that an impasse had been reached on basic issues and that Mexico was reluctant to admit additional competing airlines. Until an agreement could be reached, the United States withheld permission to the Mexican lines for extension of service into the United States.

International Relations. The Mexican Foreign Office insisted on July 30 that its exclusion from the Paris Peace Conference constituted a violation of the United Nations declaration against concluding separate peace treaties with the enemy. Mexico argued that although she did not prosecute the European war "with considerable military force" —as required by the Moscow Conference of December, 1945—her relations with Italy had always been strong and her contributions in materials and manpower to the war effort at home had been considerable. Dr. Francisco Castillo Najera, Foreign Minister, announced that Mexican Ambassador Alfonso Rosenzweig Diaz in Paris had tried in vain to see United States Secretary of State Byrnes to press the Mexican case.

In a United Nations meeting at Lake Success, New York, on October 2, Mexico submitted an atomic energy proposal that met wide approval. The proposal requested the Political Committee of the Atomic Energy Commission to determine the feasibility of international control over all plants producing atomic energy which could be used for weapons, while the individual nations controlled the operation of secondary plants producing atomic fuels for peaceful use. A week later scientists of the Commission's No. 1 committee informally decided that the Mexican plan held political implications beyond the scope of its deliberations and referred it to the No. 2 (political) committee of the Commission for study.

National Economy. Mexico's economy is based upon agriculture and mining. Corn is the principal crop and staple food. Other important domestic crops are: beans (second in importance), wheat, sugar, cotton, rice, chickpeas, and fruits. Food crops exported in significant amounts include bananas, coffee, and winter vegetables. Stock raising is also an important industry; recent estimates indicate that Mexico has 12 million cattle and 5 million hogs. Henequen, produced in Yucatán, is the chief fiber raised, but others are grown in small quantities. Forest products include chicle, wild rubber, copra, and lumber. Production figures for 1944 for leading agricultural crops: corn, 2,440,483 metric tons; rice, 118,409 metric tons of paddy; bananas, 440,465 metric tons. For 1944–45: wheat, about 396,467 metric tons; sugar, 372,875 metric tons; cotton, 495,988 bales.

Minerals constitute a large part of Mexico's exports, and equipment for mines accounts for a good part of its imports of capital goods. Mexico's major mineral product by value is silver; it leads all other countries as an exporter of this metal, and produces 40 percent of world output. Petroleum, lead, and gold are other important minerals, and copper, zinc, mercury, tin, antimony, iron, tungsten, manganese, bismuth, and cadmium are also produced. Crude petroleum production in 1944 amounted to 36,120,000 barrels; refined oil was valued at 337,687,000 pesos. Other mineral production in 1945, in metric tons: zinc, 209,940; lead, 205,314; iron, 208,148; copper, 61,680; manganese, 18,542; antimony, 8,754; silver, 1,900; molybdenum, 781; mercury, 567; tin, 177; tungsten, 64; bismuth, 161; gold, 15.

Manufacturing in Mexico is chiefly confined to consumer goods, with little development in the heavy industries. In the past 2 years, however, Mexico's industrial growth has been phenomenal,

and there are now over 28,500 factories employing more than 512,000 persons. The cotton textile industry has recently reached major proportions as a national industry. It includes some 200 mills with a capital investment of about 150,000,000 pesos. Sales value of production in 1944 amounted to 480,000,000 pesos. Silk and rayon textiles are also made. Processing of foods is an important industry, and in addition, such articles as cigarettes, leather goods, cement, paper, and glassware are manufactured.

Foreign Trade. Mexican exports in 1945 were valued at 1,332,666,000 pesos. Commerce during the war years was almost exclusively confined to the United States, imports and exports to that country both reaching 85 percent of the total value in 1944. Merchandise exports to the United States in 1945 amounted to 1,116,589 pesos. Major exports consist of raw materials, principally metals.

Mexican imports in 1945 were valued at 1,603,404,000 pesos. In 1945 Mexican imports from the United States reached 1,321,528,000 pesos. The value of imports of agricultural, mining, and industrial machinery increased from 67,000,000 pesos in 1940 to 537,976,000 pesos in 1945. Imports consist chiefly of manufactured and semi-manufactured goods, and foodstuffs.

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MIDWAY ISLANDS. A group of islets located in the Pacific, 1,304 statute miles northwest of Honolulu. Although Midway was discovered by Captain N. C. Brooks in 1859 and known as Brooks Island, the name was later changed because of the position of these islands in the mid-Pacific, i.e. 2,800 miles from California and 2,200 miles from Japan. It was formally declared a United States possession on Aug. 28, 1867 by Captain Reynolds of the U.S.S. *Lackawanna* who made a survey of the islands

The U.S. Navy Department has had complete jurisdiction over them since July 4, 1903. The total land area of all the islets is approximately 28 square miles. Sand Island is one and a half miles long and one mile wide consisting of 850 acres and serves as an important cable relay station of the Commercial Pacific Cable Company in the service between San Francisco and Shanghai. Eastern Island is somewhat smaller than Sand and contains only 328 acres. Midway Islands have been used as a naval air station and as an air depot between Nov. 24, 1935, and Dec. 7, 1941, by Pan American Airways on their transpacific route between San Francisco and Manila. The population of Midway has always been small, in 1940, it was 437.

MILBANK MEMORIAL FUND. A Fund established in 1905, with assets of $9,706,642.70 at the end of 1945. Appropriations for grants and projects in that year totaled $240,778.65. The scope of the Fund, while widely diversified, has been principally in the field of public health. At present its special interests in this field are nutrition, housing, population trends, and the appraisal of public health methods and procedures. In 1945 twenty-seven organizations received funds. President: Albert G. Milbank. Executive Director: Frank G. Boudreau, M.D. Offices: 40 Wall Street, New York, New York.

MILITARY GOVERNMENT. Germany. The policy of the United States in regard to the occupation of Germany was first published in a joint report issued on February 11, 1945 after the Chiefs of State of the United States, United Kingdom, and the Union of Soviet Socialist Republics had conferred at Yalta early in that year. At this conference it was decided "that France should be invited by the three powers, if she should so desire, to take over a zone of occupation."

In April 1945, a document known as J.C.S. 1067 was issued by the Joint Chiefs of Staff of United States in the form of a directive to General Eisenhower, the Commander in Chief of the U.S. Forces of Occupation. This document and the following Potsdam Declaration of the three powers, August 2, 1945, has formed and provided for the implementation of the United States policy in Germany. The American policy was further clarified in the speech of Secretary of State Byrnes in Stuttgart in Germany on September 6, 1946.

Organization of Military Government for Germany. The Allied Control Authority (A.C.A.) is the supreme governing machinery for Germany while the basic requirements of the unconditional surrender are being fulfilled. It consists of the following organizations:

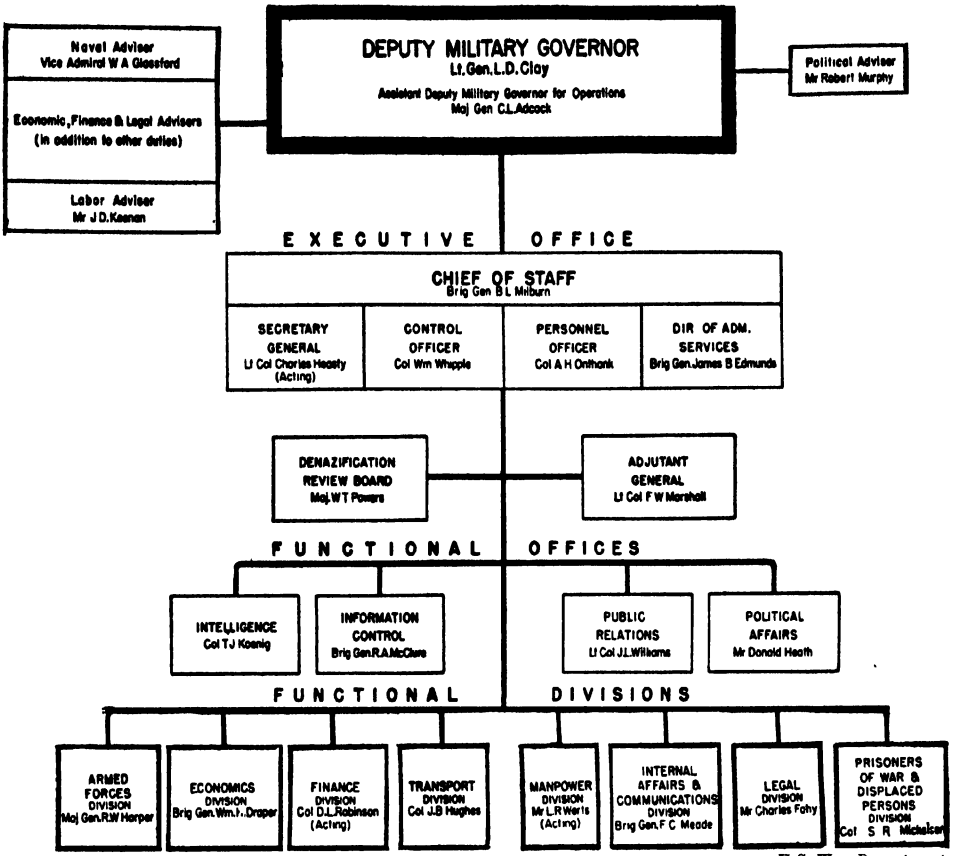
a. *Control Council*
This Council is composed of the four Commanders of the occupation forces of the four Allied Nations governing Germany, i.e., United States, United Kingdom, Republic of France, and the Union of Soviet Socialist Republics. Decisions affecting Germany as a whole must be unanimous. The Chairman of the Council rotates monthly.
b. *Coordinating Committee*
The Coordinating Committee is composed of the four Deputy Military Governors and is responsible to the Control Council. It recommends action to and implementation of the decisions of the Control Council.
c *Allied Secretariat*
The Secretariat consists of the four national Secretaries and is responsible for agreeing on the Agenda and Minutes of Meetings of the Control Council and Coordinating Committee It also translates papers into the official languages and performs other like administrative duties.
d. *Control Staff*
The Control Staff is formed by twelve quadripartite directorates responsible for operational functions, which are Air, Naval, Military; Reparations, Deliveries and Restitution; Political; Transport, Finance; Legal; Prisoners of War and Displaced Persons, Manpower, Internal Affairs and Communications; and Economic. These directorates act as special advisory bodies to the Coordinating Committee.

Organization of Military Government in the U.S. Zone. The responsibility for implementing the decisions of the Control Council in the U.S. Zone rests with the Office of Military Government for Germany (U.S.), (OMGUS). The Commanding General of OMGUS is the Deputy Military Governor. He has a political advisor who counsels him on political problems in Germany and on broad U.S. policy in relation to Germany.

The Staff of the Office of Military Government consists of executive and functional offices and of various functional divisions which advise the Military Governor on their particular field of activity.

Directly responsible to OMGUS are the Office of Military Government for Berlin, U.S. Sector, Office of Military Government for Bavaria, Office of Military Government for Bremen, Office of Military Government for Wuerttemberg-Baden, Office of Military Government for Greater Hesse. Each of the three land (state) offices maintains liaison and security offices in each *landkreis* (county) and *stadtkreis* (city), within its area of jurisdiction.

German Civil Government, U.S. Zone. In each of the three *laender* (states) of the U.S. Zone there is a German administration consisting of a Minister President and a Cabinet. The responsibility for government has gradually been placed in their hands. On January 30, 1946, zone-wide elections were held, in which town councils (*gemeinderäte*) were elected in all towns with a population of less than 20,000. These councils then elected a mayor (*bürgermeister*), subject to the approval of Mili-



U.S. War Department

OFFICE OF MILITARY GOVERNMENT FOR GERMANY (U.S.)

tary Government. On April 28, the rural counties elected their councils (*Kreistag*) who in turn elected the *Landrate* (heads of the county administration). On May 26 the cities with a population of more than 20,000, elected the city councils who in turn elected mayors (*bürgermeisters*). On June 30 members of the Constitutional Assembly in each land were elected and began the work of drafting constitutions for their respective states Supervisory control is maintained by the Offices of Military Government of the respective lands.

Council of Minister Presidents (Laenderrat). This Council consists of the Minister Presidents of each land in the U.S. Zone and has its seat in Stuttgart. There is a permanent representative of each state and a staff of directorates and secretaries. It functions as a common agency for matters requiring coordination of the three laender of the U.S. Zone. It operates under the supervision of the Regional Government Coordinating Office, a special Military Government agency directly responsible to the Deputy Military Governor.

German Legislation (U.S. Zone). The most important piece of German legislation enacted since the unconstitutional surrender, is the "Law for Liberation from National Socialism and Militarism," which was promulgated by the *Laenderrat* and approved by OMGUS on March 5, 1946. This law places the responsibility for over-all denazification on the German administration. Under the law, all residents of Germany must register, giving in detail their affiliations with the N.S.D.A.P. and its subsidiary organizations, and with the *Wehrmacht*. Each individual is then classified as one of the following by a tribunal (*Spruchkammer*) composed of known anti-Nazis: (1) Major Offender; (2) Offender (Activist, Militarist, or Profiteer); (3) Minor Offender; (4) Follower.

Mandatory and optional sanctions are then imposed by the tribunal ranging from ten years internment at forced reconstruction, loss of civil rights, and confiscation of property for Major Offenders, to loss of civil service rank and varying degrees of confiscation of property and fines for reparations, for Followers.

Political Life in the U.S. Zone. In accord with the policy set forth in the Potsdam Declaration of reviving democratic life in Germany, political parties which were democratic in character have been authorized. In the beginning, the parties were local in character, confining themselves within the borders of each county (*landkreis*). Later, they were authorized by Military Government to organize on a state (*land*) level.

The Christian Democratic Union (Christian Social Union in Bavaria), the Social Democratic Party, and the Communist Party are organized in each land In addition, the Liberal Democratic Party is organized in Great Hesse, having its counterparts in the Free Democratic Party in Bavaria and the Democratic People's Party in Wuerttemberg-Baden. The Economic Reconstruction Party has organized only in Bavaria.

Civil Administration. The first formal zone-wide

political party was organized on September 28–29 at Stuttgart when the Democratic People's Party was formed by the union of the Free Democratic Party (Bavaria), Liberal Democratic Party (Greater Hesse), and Democratic People's Party (Wuerttemberg-Baden). The other parties have so far been satisfied with cooperation through informal zonal "working committees."

The Constitutional Assemblies of the three *Laender* have been considering drafts of election laws to cover the coming referendum and *Landtag* (legislature) elections. Present indications are that election regulations will be almost identical with those which governed the elections on June 30 for the Constitutional Assemblies. The referenda on the proposed constitutions will probably occur on November 24 and December 1.

Local council elections in Mecklenburg and Brandenburg in the Soviet Zone on September 15 produced results little different from those in the earlier elections in the rest of the Soviet Zone on September 1 and 8, which were discussed in Report No. 14 of the Military Governor. The Socialist Unity Party (SED) was generally ascendant, particularly in the rural areas. This was expected, in view of the fact that only the SED had full opportunity to solicit support for its program.

The conservative inclinations of the population of the French Zone were reflected by substantial margins given the Christian Democratic Union. In the British Zone most of the vote was split between the Christian Democratic Union and the moderate Social Democratic Party.

The Soviet, French, and U.S. Zones have approved for elections in their Zones the basic municipal election codes of the *Weimar* period. In the British Zone, however, elections have been conducted under a code that embodied a good deal of election methods new to Germany.

One of the more important of the twelve quadripartite Control Staff Directorates is the Economic Directorate. According to the annual report, July 1945–June 1946, of Brig. Gen. William H. Draper, Jr., Director of the United States Economic Division, the Economic Directorate takes the various problems connected with the occupation of Germany and tries to settle them in terms of the basic policies agreed to by the governments of the Four Powers. To do this job, the directorate is organized into seven committees—Food and Agriculture, Industry, Central German Administration, Trade and Commerce, I. G. Farben Control, Fuel, Liquidation of German War Potential—upwards of a dozen subcommittees, and numerous of working parties of the basic policies agreed to by the governments of the Four Powers.

On August 15, 1945, two weeks after signing of the Potsdam Declaration, the Economic Directorate met for the first time, at which meeting there was considerable discussion about the basic principles laid down in the Potsdam Declaration. In its 50-odd meetings since that time, the Economics Directorate has played a vital part in endeavoring to implement those principles. For Reparations, Deliveries, and Restitution Directorate see REPARATIONS.

Collapse of Economy in July, 1945. In July the four occupying powers were confronted with an almost complete collapse of normal agricultural and food distribution operations. Harvesting was disorganized; an acute labor shortage existed; essential farm supplies, such as fertilizer, seed, tools, binder twine, and sacks were almost unobtainable. Damage to processing plants and disruption of transportation facilities, prevented processing and distribution of such foods and farm supplies as existed.

Reorganization of Institutions. The reestablishment of basic administrative machinery was the first step necessary to restore the German agricultural and food economy to a more normal operating basis. This task has been accomplished through restoration and partial reorganization of German agencies at *Land, Kreis* and *Gemeinde* levels to control the production and distribution of food. A Food and Agriculture Administration or Ministry has been established in each of the three *Laender* of the U.S. Zone.

Early in April provision was made for reestablishment of agricultural cooperatives on a democratic basis in all four Zones of Germany. Cooperative associations have played an important role in German agriculture. During the war, the activities of cooperatives were restricted or, in certain instances, suspended. The Nazis used them entirely as an instrument of Nazi domination, robbing them of their democratic character. Standards to be applied in the future development of cooperatives will be based on the principle of voluntary membership without regard to race or creed and officials will be elected in accordance with democratic principles. For the time being activities of cooperative associations are confined to the territorial jurisdiction of a single *Land*. On account of the serious food situation the office of a Commissioner for Food and Agriculture in the U.S. Zone was created in April. In accordance with Military Government policy, operating responsibility for all phases of the established food and agricultural program has been turned over to German organizations as rapidly as possible.

Food Rationing. At the beginning of the occupation period food rationing was handled on a *Land*, or in some cases a *Regierungsbezirk*, level. Consumer categories varied among different *Laender*. Ration scales were low. A uniform system of classification of consumers and uniform ration scales for each consumer category have been in effect since November 12, 1945.

Before VE-Day the amount of rationed food actually distributed to the normal consumer had fallen to 1,050 calories per day, representing the lowest per capita consumption of food since World War I. Immediately after VE-Day this amount dropped precipitately to an average of about 860 calories per day.

On April 1 food rations in the U.S. Zone were cut from 1,550 to 1,275 calories per day for the normal consumer, with corresponding reductions for other consumer groups. This ration scale was the lowest for the U.S. Zone since October 1945, and compared with an authorized ration of 1,043 calories per day for normal consumers in the British Zone and 940 calories per day for the French Zone. In May, pending definite import commitments for the last half of 1946, German authorities recommended and Military Government approved, a further reduction in the ration for the normal consumer in the U.S. Zone to 1,180 calories per day. Later ration-scale changes were slight.

At the time the joint occupation of Berlin was planned, it was not contemplated that the United States would be responsible for feeding its sector of the city. Soon after U.S. Forces arrived, however, it became evident that the United States would have to share in the responsibility for feeding the city. The city is governed jointly by the four occupying powers. A joint Food Agreement entered into by the Kommandantura (the military commanders of the four sectors of the city) forms the basis of feeding operations.

The pattern for ration scales had already been set by the U.S.S.R. when Military Government began to share in operations in July. Consumers are divided into five classes depending upon the kind of work in which they are engaged.

Group I—Heavy workers and professional workers of note (2,473 calories daily)
II—Manual workers and certain other classes of professional workers (1,975 calories daily)
III—Employees not contained in Groups I and II (1,591 calories daily)
IV—Children up to 14
0– 1 year (1,783 calories daily)
2– 6 years (1,648 calories daily)
7– 9 years (1,612 calories daily)
10–14 years (1,548 calories daily)

Crop and Land Use Plan. The crop production goal for 1946 refers as a basis to the 1937–38 crop year, which generally represents the highest yield and maximum use of arable land for Germany in recent years. The 1946 program provided for conversion of approximately 70,000 hectares of meadow and pasture to crop land, or about 63 percent of the total land that had reverted to grassland since 1938.

Under its provisions as many direct-consumption crops as possible have been planted. These include such crops as potatoes and sugar beets, which have a relatively high yield in terms of food calories. The 1946 goal for early and late potatoes, perhaps Germany's most important food crop was 511,000 hectares in comparison with 419,000 hectares in 1945. The planned hectarage for 1946 crops in the U S. Zone is shown in the following table in comparison with areas under cultivation in earlier years:

AREA OF CULTIVATED CROPS—U S ZONE

Crops	*1938*	*1943*	*1945*	*1946**
		(Thousand hectares)		
Bread grains	1,194	1,062	982	1,125
Potatoes	513	445	419	511
Other direct food crops	239	257	217	278
Other crops	1,784	1,782	1,782	1,586
Total	3,730	3,546	3,400	3,500

* Planned

Livestock Plan. A livestock program for 1946 has been established for the U.S. Zone. This program calls for selective culling to bring the livestock population into line with reduced areas of feed and fodder crops and to eliminate less profitable animals. Numbers of hogs and poultry have declined sharply in recent years, but it is not practicable to increase hog and poultry production under present conditions of total food shortage, since the food required will yield more calories in direct human consumption.

Industry in the U.S. Zone. From July 1945 through June 1946—industry in the U.S. Zone progressed despite numerous interruptions and setbacks from what amounted to a practical standstill to an operating level somewhat under one-third of estimated capacity.

Progress during the year in the U.S. Zone has been greatest in the basic industries, electric power, coal, iron and steel. Most of the gains in ferrous metals were made in the second quarter of 1946. As the stimulating effect of more steel permeates industry, output in plants heretofore restricted by steel shortages should expand.

By July 1945, more than three-fourths of the rail tracks in the U.S. Zone had been restored. But railroad facilities were being used almost wholly for military traffic and for the return to their homes of millions of displaced persons.

From July through December 1945, the main efforts of industry were devoted to housecleaning and repairs. The rubble resulting from bombing and the debris left as a result of invasion were removed from plants and equipment. As non-war plants were authorized to begin operations by Military Government, the first productive steps toward resumption of manufacturing activity were undertaken. The fact that many manufacturers had accumulated large amounts in cash before the collapse facilitated the meeting of non-productive payrolls.

During the summer and early fall of 1945, before railroads and waterways were able to cope with more than a fraction of high priority German civilian traffic, road transport played a major part in moving goods necessary to maintain a minimum of essential civilian production, notably food. Despite shortages of tires, tubes and batteries, the 37,000 trucks and 20,000 trailers then available in the U.S. Zone proved able to cope with the task. Improved coordination between Military Government and the German authorities and among the Germans themselves was an important factor contributing to the progress made in all economic fields.

With the slow but steady improvement of coal output in the Ruhr, which continued throughout February, the U.S. Zone received solid fuels at the rate of about 1,000,000 tons a month in the first quarter. The sharp drop in coal output in the Ruhr in March, following the radical curtailment of food rations in the British Zone, was not wholly reflected in a decline in coal shipments. This was made possible by heavy withdrawals from the considerable stockpiles of coal built up in the Ruhr during the fall and winter of 1945–46 when transport facilities were unable to move coal from the mines as fast as it was being produced. As a result, the weekly average of solid fuel loadings to the U.S. Zone in May were 3 percent above those of February.

The basic ground work laid in 1945 in the industrial field, accompanied by improvement in the closely related fields of transportation, communications and manpower, has continued to contribute to industrial recovery throughout the first six months of 1946. June production is estimated to be about 29 percent of operable industrial capacity excluding war plants in the U.S. Zone.

Other significant developments in fields related to industry and contributing to the revival of manufacturing activity, were the establishment of interzonal telegraph and telephone service between the three western zones in January, followed in February by inclusion of the Soviet Zone, thus restoring telegraph and telephone service on a Germany-wide basis. The reestablishment of international mail service between Germany and foreign countries (excluding Spain and Japan) on April 1, 1946, is still limited to personal mail and thus has psychological rather than direct economic significance. In February, the first commercial export sales from the U.S. Zone were concluded. In April, the inland waterway transport system had been restored sufficiently to perform its normal functions.

Labor in Industry. Since January, unemployment figures in the U.S. Zone have shown a continuous downward trend with a simultaneous upward trend in labor registration.

In all of present-day Germany, the total able-bodied men available for work (ages 14–65) are estimated to be about 6,000,000 fewer than in the same area in 1939. This shrinkage takes into account military casualties, prisoners-of-war not yet returned to the German economy and German men

still outside of Germany. In the U.S. Zone, the total male labor force in May 1946, including the employed and employable unemployed, was about 3,500,000 as against about 4,500,000 seven years previously, a shrinkage of about 22 percent. The labor pool on which U.S. Zone manufacturers may draw has been further reduced by the larger employment in agriculture which, in May 1946, was 65 percent above that of May 1939.

***Land* Economic Administration.** In Bavaria and in Greater Hesse there are separate Ministers for Economics and for Food and Agriculture. In Wuerttemberg-Baden the Minister of Economics is also responsible for food and agriculture. The Minister of Economics in each *Land*, under the Minister President, is responsible for industry, trade and commerce, price control, and control of scientific research, and is responsible for insuring that Trade Associations, Chambers of Industry and Commerce, and Handicraft Chambers are organized and operate in accordance with established policies and do not exceed their authorized powers.

The *Laenderrat*. The Minister Presidents were authorized in November 1945 to organize the *Laenderrat* as the means for obtaining necessary coordination within the U.S. Zone. The *Laenderrat* consists of the Council of the Minister Presidents which meets once a month, a Directorate composed of two delegates from each Land and the Secretary General, a permanent Secretariat, and numerous committees. The Directorate has been authorized by the Minister Presidents to take action on the all but over-all basic policy matters which are reserved for decision by the Council of Minister Presidents. Decision by the Directorate must be unanimous except in routine matters with respect to which a Land may waive its veto right.

The *Laenderrat* has been authorized by Military Government to effect direct contact with the German officials in the other zones. There are regular meetings between the German officials in the British and U.S. Zones, and permanent liaison has been established between the *Laenderrat* and the British Zone for economics and for food and agriculture.

***Internal Trade*.** The slow revival of Germany's internal trade has been one of the major difficulties in the resurgence of the economy of the U.S. Zone of occupation. The industry of the former Reich was based upon mutual interdependence of industries located throughout Germany for raw materials, machine parts and semi-fabricated items. Hence, industry during the first months was only able to survive if stocks were available. There was a similar situation in agriculture with regard to seeds, machinery, and fertilizers. Thus the newly erected zonal boundaries of segmented Germany have been one of the major factors in the almost complete stagnation of internal trade. Pending elimination of these barriers and treatment of Germany as an economic unit, a number of makeshift arrangements for interzonal trade have been made. These have usually been two-party agreements, frequently on a barter basis, to permit partial restoration of the former natural division of labor and exchange of commodities between regions in which they can be economically produced.

***Eliminating Cartels and Monopolies*.** On July 5th, 1945, I. G. Farben, the largest chemical firm in the world, Germany's major producer of war materials, builder and manager of most of the explosives and poison gas plants which fed the Hitler war machine, and known the world over as "a state within a state," ceased to exist in the U.S. Zone of Occupation.

IMPORTS INTO U.S. ZONE, GERMANY FOR PERIOD APRIL 1, 1945 TO APRIL 30, 1946

Item	*Volume*	*Value in Dollars*
1. Food (net long tons)	485,485,000	$101,396,937.80
2. Raw Materials (MT)	210,524,000	15,648,564.87
3. Manufactured Goods		
a. Clothing (each)	90,000	235,119.00
b. Medical Supplies (each)	11,856	35,082 04[a]
c. Vehicles and Trailers (each)	7,600	6,970,142 00
		$124,285,845 71

[a] Value of Medical Supplies does not include value of nine hospitals presently being turned over to German civilians, as all quantitative receipts have not reached this branch to date and detailed prices are unavailable.

EXPORTS FROM U S ZONE, GERMANY FOR PERIOD AUGUST 1, 1945 TO APRIL 30, 1946

Item	*Quantity in M. T*	*Value in Dollars*	*Purchasing Country*
Butylacetate	16 320	$ 3,835 20	Czechoslovakia
Hops	1,370 938	3,606,460 59	Belgium; USA [a]
Photographic Gelatine	50.446	111,813 25	Belgium
Potassium Sulphate	1,052 000	74,739 66	Czechoslovakia
Potassium Magnesium	1,514 000	47,569 88	Czechoslovakia
Salt	1,692 900	8,125 92	Czechoslovakia
Sand	156 000	1,482 00	Belgium
Total	6,452.604	$3,854,026 50	

[a] Belgium 500 177 M T.; USA 870 761 M T

NOTE Above items do not include various exports to Czechoslovakia, Belgium, Luxemburg and Netherlands prior to October 31, 1945. These export transactions were accomplished on the basis of quantitative receipts being signed by recipient governments and to date no financial settlements have been made or prices obtained Imports-Exports Section is presently consolidating on a quantitative basis all such available receipts and has further requested that all foreign embassies forward to their office any quantitative receipts executed on purchase of exports from the U.S Zone, Germany Necessary action will be taken by Imports-Exports Section to insure that quantitative receipts have been obtained on all exports prior to submission to Supply Accounting Branch for final processing.

On that date United States Army officers seized and took over the management of 42 major manufacturing plants, 56 sales offices and 26 miscellaneous installations, all of them in the American Occupation Zone and representing approximately ten percent of the vast I. G. Farben empire in Germany. Parallel action was taken in the other three Zones of Occupation on different dates, and was confirmed by the passage of Allied Control Council Law No. 9.

Austria. The treatment of Austria as a liberated rather than a conquered country stems from the Moscow Declaration, November 1, 1943, which states in part, "Austria, ------, shall be liberated from German domination." In that document, the United States, Union of Soviet Socialist Republics, and the United Kingdom stated that they wished to see established "a free and independent country." Thus, the policy toward Austria has been, from the first, positive and constructive.

Early in July 1945, the European Advisory Committee in London concluded the agreements on control machinery for Austria and the zones of occupation.

Late in August 1945, the Headquarters, United States, Forces in Austria, was moved to Vienna from Salzburg. French and Britain headquarters were moved to Vienna at the same time and on September 1, Vienna came under quadripartite control.

Politically, a Provisional Government for Austria had been established by the Soviets in April 1945, under Dr. Renner. The power of the Provisional Government was extended throughout Austria on October 20. All acts of this government had to be

approved unanimously by the four Members of the Allied Council.

On November 25, 1945, a free and fair election was held for a national parliament and provincial legislatures. Approximately 93 percent of the registered vote was cast. A majority of the seats in the parliament and in all the provincial legislatures went to the People's Party. The Socialist Party was a close second and the Communists a poor third. Dr. Renner was elected Federal President and Dr. Figl of the People's Party became Federal Chancellor. The cabinet was organized on a coalition basis, with all three parties participating.

The most important political development of the year 1946, to date, has been the approval on May 24 by the Allied Council of the New Control Agreement for Austria, and its approval by the Governments of the Four occupying Powers on June 28.

The major political point of the New Control Agreement is that, except for constitutional law, acts passed by the Austrian government became law thirty-one days after passage unless unanimously rejected by the Control Council. This reverses the previous condition under which unanimous consent was required of the Control Council. The New Control Agreement is a major step forward in returning the control of Austria to the Austrians.

Italy. At the close of December 1945, Allied Military Government came to an end except in the Province of Udine and Venezia Guilia. AMG had followed the advance of the armies from Sicily to the north of Italy, progressively turning over territory under its control to Italian administration as quickly as military conditions and the ability of the national government to assume responsibility would permit.

The retention of Allied Military Government in Venezia Guilia and Province of Udine was made necessary by the conflicting claims of Yugoslavia and Italy. Venezia Guilia has been divided into Zones A and B by the establishment of the so called "Morgan Line," pursuant to an agreement between Field Marshal Sir Harold Alexander and Marshal Tito. On August 11, 1945, local government in Zone A was established under the control of AMG of XIII Corps.

The Allied Commission in Rome continued in its role of advising the Italian Government and of maintaining a watch on public safety and the communications and transportation facilities of the civil economy. The rights obtained by the Allies under the Armistice were held in reserve and not fully exercised. Except for one General Court held at Naples during the first quarter of the year, Allied Military Tribunals ceased to function outside of Venezia Guilia and Udine.

In June a general election was held throughout Italy (except Venezia Guilia and Udine), and a referendum on the issue of monarchy or republic. Revised armistice terms which were agreed to be the Conference of Foreign Ministers at Paris on May 16, 1946 were presented to the Italian Government on June 1, 1946, but that government has not yet acted upon it.

Japan. The basic policies for the military occupation and post-surrender government of Japan are set forth in the Potsdam Declaration issued on July 26, 1945 by the United States, China, and Great Britain and subsequently adhered to by the Union of Soviet Socialist Republics; the Instrument of Surrender signed by the Japanese on September 2, 1945; the Moscow Agreement between the United States, Great Britain, and the Union of Soviet Socialist Republics, with the concurrence of China, in December, 1945; and directives on Post-Surrender Policy issued by the Joint Chiefs of Staff of the United States.

By agreement of the United States, China, Great Britain, and the Union of Soviet Socialist Republics, General of the Army Douglas MacArthur was designated as the Supreme Commander for the Allied Powers for the purpose of enforcing the surrender of Japan.

The Moscow Agreement provided for the establishment of the Far Eastern Commission and the Allied Council for Japan to participate with the Supreme Commander in the creation and implementation of Post-Surrender Policy in Japan.

The Far Eastern Commission is composed of representatives of the Union of Soviet Socialist Republics, United Kingdom, United States, China, France, the Netherlands, Canada, Australia, New Zealand, India, and the Philippines. This Commission sits in Washington, D.C., formulates policies, principles, and standards in conformity with which the fulfillment by Japan of its obligations under the terms of surrender may be accomplished; reviews directives issued to and action taken by the Supreme Commander involving policy decisions within the jurisdiction of the Commission; and considers such other matters as may be assigned to it by agreement among the participating governments. The Commission does not make recommendations with regard to the conduct of military operations and respects the existing control machinery in Japan,, including the chain of command from the United States Government to the Supreme Commander's command of occupation forces.

The Allied Council for Japan is composed of representatives of the United States, China, United Kingdom and the Union of Soviet Socialist Republics, under the Chairmanship of the Supreme Commander (or his Deputy) who is also the United States member. The Council consults with and advises the Supreme Commander in regard to the implementation of the terms of surrender and the occupation and control of Japan. The Supreme Commander is the sole executive authority, and as such issues all orders.

The decisions of the Supreme Commander are controlling on all matters except those regarding the implementation of policy decisions of the Far Eastern Commission on questions concerning a change in the regime of control, fundamental changes in the Japanese Constitutional structure, and a change in the Japanese government as a whole. If a member of the Allied Council disagrees with the Supreme Commander regarding the implementation of such policy decisions, the issuance of orders thereon must be withheld pending agreement in the Far Eastern Commission.

There was no intent under the Potsdam Declaration to destroy Japan as a nation, but it was provided that "The Japanese Government shall remove all obstacles to the revival and strengthening of democratic tendencies among the Japanese people. Freedom of speech, of religion and of thought, as well as respect for the fundamental human rights shall be established." In conformity with this policy, Military Government as established in Japan, has utilized the Japanese administrative machinery and, so far as practicable, Japanese public officials, making these officials responsible for the carrying out of the policies and directives of the military government, which are designed to enforce the terms of the Potsdam Declaration and the Document of Surrender. All persons who have been flagrant exponents of militant nationalism and ag-

gression or are for any other reason undesirable, have been removed or barred from holding public office or any other position of responsibility or influence in the Japanese Government.

To accomplish the supervision and control required in matters of government, the Supreme Commander of the Allied Powers has created a special staff with sixteen separate Divisions devoted to all phases of government and civil affairs administration. All directives to the Japanese Government are transmitted by the Supreme Commander through the Japanese Control Liaison Office. The Supreme Commander is empowered to take direct action if and to the extent that Japanese authorities fail satisfactorily to carry out his instructions. See JAPAN.

As of July 2, 1946, it was estimated that 186,000 Japanese had been excluded from government service under the purge directives of January 4, 1946 issued by General Douglas A. MacArthur.

SCAP began releases of imported and surplus U.S. Army stocks of grain, flour and canned goods in April 1946. At first only a few prefectures were affected, but by August it was necessary to release imported foods in 23 prefectures. More than 400,000 metric tons of imported food were distributed efficiently by the Japanese Government under SCAP surveillance. This food not only prevented mass starvation but served as proof to the Japanese people that the Allied Powers were endeavoring in every way possible to aid in rebuilding a democratic Japan.

Fertilizer production has been doubled since January 1946. The agricultural program also included food conservation, land reclamation, increased grazing, technical advice directly to producers and the direction of more than 100 research projects.

The fishing industry had to overcome shortages of boats, nets, fuel oil and other supplies and equipment.

Democratization of Japanese Life. ***Family Structure.*** The feudal nature of the Japanese family structure is notorious. When the war ended the rights of the father as master of the household, the right of primogeniture and the legal and political incompetence of women were accepted concepts in the Japanese Civil Code. The first break in this system came when at the suggestion of SCAP the Imperial Diet extended the right of suffrage to women 20 years of age or more. 1,000,000 more women than men, or nearly 67 percent of all registered women voters, went to the polls on April 10 and 38 women were elected to the House of Representatives.

Further reforms are decreed in Article XIV of the proposed constitution which says: "Marriage shall be based only on the mutual consent of both sexes and it shall be maintained through mutual cooperation with equal rights of husband and wife as a basis. Laws shall be enacted considering choice of spouse, property rights, inheritance, choice of domicile, divorce and other matters pertaining to marriage and the family from the standpoint of individual dignity and the essential equality of the sexes."

Measures to protect the family by preventing the economic exploitation of women have also been introduced. By SCAP directive licensed prostitution was abolished and the binding of women by contract to the practice of prostitution was prohibited. Measures to protect the health of employed women and children were revived and reinvigorated.

Industrial Reform. During the war the Zaibatsu tightened their practically monopolistic control over industry, more than tripling their assets, while the Government established control associations in almost every major industry with power to fix prices, make allocations, control expansion and consolidate plants. The Holding Company Liquidation Commission was established in August 1946 to dissolve Zaibatsu holding companies and to reorganize their subsidiary companies. Holding companies are to transfer their assets to the Commission and will cease to exercise control over the enterprises affected. The Commission will liquidate companies while protecting the interests of small shareholders.

To remove the complete domination of industry by control associations SCAP ordered the Japanese Government in August 1946 to dissolve all such associations, to repeal all pertinent laws and regulations and to create proper agencies within or under the Economic Stabilization Board to allocate materials to specific industries.

Agrarian Reform. Most of Japan's farmers work the land as tenants with resulting poverty and insecurity. Since the surrender efforts have been directed to eliminating monopolistic control of land and to encouraging small producers. In August 1946 the Cabinet approved a new program of land reform prepared by the Ministry of Agriculture and Forestry and submitted it to the Diet. This program is a constructive attempt to enable the tenants to become landowners on reasonable terms and to improve conditions for those who will continue to work as tenants. According to the Government's estimates almost 2,000,000 tenant farmers will be able to purchase about 80 percent of the land they now cultivate as tenants

Labor Reform. During the war legislation designed to suppress and regiment labor was passed while protective standards for workers in factories were relaxed In December 1945 the first labor union law in Japanese history was promulgated. It established the legal status of labor unions and protected workers from discrimination because of union membership. As a result of these actions more than 7,000 free labor unions with 3,000,000 members, mostly affiliated with two major national federations, were organized during the first year of the Occupation. A bill to establish machinery for conciliation, mediation and arbitration of labor disputes is being considered by the Diet

Political Structure. The decision to utilize the Japanese Government in carrying out the terms of the Potsdam Declaration made it necessary for SCAP to eliminate all militaristic and ultra-nationalistic elements from public life. This was accomplished by the Purge Directive of January 4, 1946. Under its terms some 186,000 persons who had aided and supported the cause of the militarists were barred from public office. The Purge Directive stimulated the growth of healthy political parties. It made room for new men in politics among both the leaders and the rank and file. Their influence grew until all parties were fully committed to encouraging the democratic way of life.

In the April 1946 election 72 percent of the registered voters went to the polls. Since no party had a majority in the House of Representatives, a coalition of Liberals and Progressives was formed under Prime Minister Shigeru Yoshida. This Government has worked energetically for the passage of the proposed new constitution and has outlined a program of emergency measures to alleviate the economic crisis.

Religion. Legal restrictions on religious freedom were removed. Shinto, the state-supported, -controlled, -disseminated-and-inspired religion which

had been an effective tool of the militarists and ultra-nationalists, was purged of all objectionable elements.

Complete separation of the cult from the state was effected. State Shinto doctrines were eliminated from the schools and the use of Shinto symbols for propaganda purposes was forbidden.

Christian organizations were freed of wartime restrictions and the way was opened for the return of missionaries to Japan.

The Emperor in his rescript of January 1, 1946 renounced all claims and pretensions to divinity.

Korea. The chief difference in the problem of Military Government in Korea and Japan is that the former was left without an established Korean Government, when liberated from the Japanese, while a responsible government existed in Japan to carry out the directives of the Supreme Commander.

The Moscow Agreement of December, 1945 (Part III) provides for the Joint participation by representatives of the U.S. Command in Southern Korea and the Soviet Command in Northern Korea in the formation of representative provisional government for Korea. A United States–Soviet Joint Commission was created for this purpose. The Moscow Agreement further provides that after the establishment of such provisional Korean government, a four-power trusteeship of Korea will be created, to be administered by the United States, China, the United Kingdom and the Union of Soviet Socialist Republics for a period of up to five years. Both the proposals of the Joint Commission and the desires of the provisional Korean government are to be considered in the development of democratic self-government in Korea under the trusteeship and the ultimate establishment of the national independence of Korea.

No provisional Korean government has been established to date, because the Joint Commission has been unable to agree upon the Korean democratic parties and social organizations that should be consulted to this end. The Soviet representatives claimed that only those parties and organizations which subscribe to the idea of "trusteeship" as set forth in the Moscow Declaration should be consulted. The United States representatives maintained that all democratic parties and social organizations should be consulted. In the interim, civil affairs in the area of Korea occupied by United States forces have been administered by the Commanding General, U.S. Army Forces, Korea (who is subordinate to the Commander in Chief, U.S. Army Forces, Pacific), through policy directives of the United States Government, and the area occupied by the Soviet Command is administered under policies of the Union of Soviet Socialist Republics.

Military Government, as established in the U.S. Zone, has utilized local, regional, and national agencies of existing government as far as possible. All Japanese and all Koreans who have been exponents of Japanese Nationalism and aggression have been eliminated from positions of responsibility or influence. As of April 1946, approximately 70,000 Japanese, the total number who were connected with Civil Service in Southern Korea in September 1945, had been removed.

Progress has been made in the development of democratic government in Southern Korea by the restoration of civil liberties to the people and the elimination of obnoxious laws and other vestiges of Japanese control. A legislature for Southern Korea is in process of formation.

Elimination of Japanese Influence. At the time of the Occupation there were 625,957 Japanese in South Korea, and elimination of their influence was the most pressing task confronting Military Government. To remove all Japanese immediately, installed as they were in all positions calling for skilled administrators and technicians, would have created chaos. Registration of Japanese nationals in Korea was started in October 1945. A total of 179,277 Japanese military surrendered, were disarmed and were evacuated to Japan.

In addition to this evacuation of Japanese from South Korea proper, 221,867 have streamed into the American Zone from north of the 38th parallel and, with the exception of about 5,000 currently being processed for repatriation, have been returned to their homeland. Fewer than 300 Japanese remain as residents in South Korea today. Except for about 40 who have evaded registration, these are either qualified by marital ties to remain or are in such bad health that their repatriation must be deferred.

At the time of the initial occupation the Korean Civil Service, with the exception of some who had fled to Japan, numbered 70,000 while there were more than 130,000 minor Japanese employees.

These Japanese employees were rapidly eliminated. By the end of January, only 60 Japanese nationals remained in the Government service; today none remain.

Following the elimination of Japanese and known pro-Japanese Koreans from major public offices, elimination of Japanese influence from provincial and lower levels of government was finalized by a sweeping order dissolving all such governmental councils and impounding their records on March 24, 1946

Pro-Japanese propaganda and nationalistic societies were eliminated. In the schools, used by the Japanese to the fullest extent for the dissemination of Japanese ideology, the Military Government removed 15,000 Japanese teachers and destroyed textbooks of a propagandistic nature.

In December 1945, an ordinance was published vesting title to all former Japanese property in the Military Government. Where formerly the vast majority of these properties contributed to Japanese economic life at the expense of Korea, they are now being utilized in the interests of the Korean people.

Reforms were instituted which completely de-Japanized the legal system of Korea. Many branches of the profession, notably the Korean Bar, have been reorganized; the procurator system has been modernized to center on prosecution rather than investigation; and all important court decisions and opinions are now made public.

Governmental Organization. The Military Government organization immediately after the Occupation consisted of a Military Governor, a Civil Administrator, a Secretariat and nine Bureaus. The Secretariat took over the functions of general affairs, foreign affairs, intelligence and information, civil service, army administration, property custody, planning and accounts. The Bureaus administered finance, mining and industry, agriculture and commerce, public safety, public health, education, justice, communications and transportation.

On January 4, 1946, tactical commanders were relieved of Military Government duties by the establishment of government on a territorial basis, a system under which it is still operating. On August 31, 1946, the Commanding General, USAFIK, requested the Military Governor to turn over actual operation of all departments of government to Koreans. Temporarily excepted from this directive are operation of the Materials Control Corporation,

property custody, and the Civilian Supply Program. In all other departments American military personnel will be left in only an advisory capacity as far as is practicable.

Reinstatement of Koreans. Although the Military Government which is administering Korea has gone through many changes, from the outset it has scrupulously followed a policy of reinstating Koreans in positions of responsibility. This policy has involved not only the reform of Korea's Civil Service but the progressive training of able Koreans for every position in national and provincial administration.

Utilization of Korean personnel has been stressed in all departments and activities of Military Government. Working with the military incumbent in every position is a Korean official of equal rank, while the majority of minor positions in government of all levels are occupied by Korean personnel. On February 14, 1946, Korean advice was introduced into the highest levels of administration by formation of the Representative Democratic Council, an advisory body to the Military Governor. All major political parties were invited to nominate members of the Council, and Dr. Syngman Rhee, famous Korean patriot, was nominated Chairman. By March 1946, the utilization of Korean personnel had progressed so far that the Bureau of Justice was able to withdraw all but a few top Military Government men and turn over operation to Koreans.

Interzone Activity. Negotiations of the United States–Soviet Joint Commission for Korea to implement pertinent phases of the Moscow decision of December 1945, came to an impasse due to the refusal of the Soviets to recognize the rights of free speech and opinion.

Russian delegates insisted that any Korean party representative who had ever expressed criticism of Trusteeship should be ineligible for consultation in forming the proposed Korean provisional government. The American position was that such an interpretation would deny the rights of free speech.

MILITARY PROGRESS. The influence of the Atomic Bomb, possessed in its entirety only by the United States, was a dominating factor in the military thinking and planning of every nation of the world. This new weapon, together with the yet untried biological and radioactive agents and coupled with guided missiles, threatens to alter radically the entire concept of warfare. Unless and until some form of effective international regulation and control is agreed to by the nations of the world, the matter of the use of these new methods in offensive operations and the problems of defense against them will continue to dominate the military plans of all countries.

Pending such an international agreement the United States continued its manufacture of atomic bombs while other nations worked on research and methods of production and sought new sources for the materials necessary for production.

Despite the advent of the new weapons and the research for still newer ones, there was no noticeable trend away from those forces which proved themselves so potent in past wars—the conventional ground forces with its modernized artillery and armored components, and the air forces which played so powerful a part in World War II. For 1946, at least, the new weapons were looked upon as additions to the military potentialities without any apparent diminution of the older means of warfare.

Atomic Bombs. The bombing of Hiroshima and Nagasaki having been the only examples of the use of this new weapon under conditions of actual warfare, most detailed studies have been and are being made of the effect of the bombs in those cities.

On June 30, 1946, the War Department made public portions of the report compiled by the Manhattan Engineer District (the code name for the Department's atom bomb production project under the direction of Major General Leslie R. Groves, U.S. Army). The main conclusions of this report were as follows:

"1. No harmful amounts of persistent radioactivity were present after the explosions as determined by

"A. Measurements of the intensity of radioactivity at the time of the investigation; and

"B. Failure to find any clinical evidence of persons harmed by persistent radioactivity

"2. The effects of the atomic bombs on human beings were of three main types

"A Burns, remarkable for (1) the great ground area over which they were inflicted and (2) the prevalence of 'flash' burns caused by the instantaneous heat radiation

"B. Mechanical injuries, also remarkable for the wide area in which suffered.

"C Effects resulting from penetrating gamma radiation. The effects from radiation were due to instantaneous discharge of radiation at the moment of explosion and not due to persistent radioactivity (of either fission products or other substances whose radioactivity might have been induced by proximity to the explosions)

"3. The effects of the atomic bombs on structures and installations were of two types.

"A. Destruction caused by the great pressure from the blast; and

"B. Destruction caused by the fires, either started directly by the great heat radiation, or indirectly through the collapse of buildings, wirings, etc

"4. The actual tonnage of T N.T. which would have caused the same blast damage was approximately of the order of 20,000 tons.

"5. In respect to their height of burst, the bombs performed exactly according to design

"6. The bombs were placed in such positions that they could not have done more damage from any alternative bursting point in either city.

"7. The heights of burst were correctly chosen having regard to the type of destruction it was desired to cause

"8. The information collected would enable a reasonably accurate prediction to be made of the blast damage likely to be caused in any city where an atomic explosion could be effected."

Subsequently the White House made public a report on "The Effects of Atomic Bombs on Hiroshima and Nagasaki" from the United States Strategic Bombing Survey, a civilian committee, under the chairmanship of Mr. Franklin D'Olier, which had been appointed in 1944 by the late President Roosevelt. An interesting portion of that report was the section "What We Can Do About It," from which the following extracts are taken:

"Since modern science can be marshalled for the defense as well as the attack, there is reason to hope that the protective weapons and techniques will be improved. Even protective devices and vigilance, however, cannot be perfect guards against surprise or initial attack, or against the unlimited choices of targets offered an enemy through the range and speed of modern weapons. In our planning for the future, if we are realistic, we will prepare to minimize the destructiveness of such attacks, and so organize the economic and administrative life of the Nation that no single or small group of successful attacks can paralyze the national organism.

"1. Shelters —The most instructive fact at Nagasaki was the survival, even when near ground zero, of the few hundred people who were properly placed in the tunnel shelters. Carefully built shelters, though unoccupied, stood up well in both cities. Without question, shelters can protect those who get to them against anything but a direct hit. Adequate warning will assure that a maximum number get to shelters.

"The survival of sheltered sections of Nagasaki suggests forcefully the use that can be made of irregular terrain. Uneven ground reduces the spread and uniformity of blast effect. Terrain features such as rivers and parks afford natural firebreaks and avenues of escape.

"2. Decentralization.—Hiroshima and Nagasaki were chosen as targets because of their concentration of activities and population. The population density of 45,000 or

more per square mile of built up area explains in part the high casualty rate. Significant therefore is the fact that deaths at Nagasaki, despite the greater population density, were only one-half those at Hiroshima: the difference can be assigned in the main to the separation of the dispersed built-up pockets at Nagasaki, in contrast to the uniform concentration of the inhabitants in the heart of Hiroshima. The Nagasaki bomb thus dissipated much of its energy against hills, water, or unoccupied areas, while the Hiroshima bomb achieved almost optimum effect.

"The fate of industries in both cities again illustrates the value of decentralization. All major factories in Hiroshima were on the periphery of the city—and escaped serious damage; at Nagasaki, plants and dockyards at the southern end of the city were left intact, but those in the valley where the bomb exploded were seriously damaged

"An enemy viewing our national economy must not find bottlenecks which use of the atomic bomb could choke off to throttle our productive capacity.

"3. Civilian Defense.—Because the scale of disaster would be certain to overwhelm the locality in which it occurs, mutual assistance organized on a national level is essential. Such national organization is by no means inconsistent with decentralization; indeed, it will be aided by the existence of the maximum number of nearly self-sustaining regions whose joint support it can coordinate.

"Most important, a national civil defense organization can prepare now the plans for necessary steps in case of crisis Two complementary programs which should be worked out in advance are those for evacuation of unnecessary inhabitants from threatened urban areas, and for rapid erection of adequate shelters for people who must remain.

"4 Active defense —Protective measures can substantially reduce the degree of devastation from an atomic bomb and the rate of casualties Yet if the possibility of atomic attack on us is accepted, we must accept also the fact that no defensive measures alone can long protect us At best they can minimize our losses and preserve the functioning of the national community through initial or continuing partial attack Against full and sustained attacks they would be ineffectual palliatives

"As defensive weapons, atomic bombs are useful primarily as warnings, as threats of retaliation which will restrain a potential aggressor from their use as from the use of poison gas or biological warfare The mission of active defense, as of passive defense, is thus to prevent the surprise use of the atomic bomb from being decisive A wise military establishment will make sure—by dispersal, concealment, protection, and constrant readiness of its forces —that no single blow or series of blows from an enemy can cripple its ability to strike back in the same way or to repel accompanying attacks from other air, ground, or sea forces. The measures to enable this unrelaxing state of readiness are not new; only their urgency is increased Particularly is this true of the intelligence activities on which informed decisions and timely actions depend

"5. Conclusion —One further measure of safety must accompany the others To avoid destruction, the surest way is to avoid war. This was the Survey's recommendation after viewing the rubble of German cities, and it holds equally true whether one remembers the ashes of Hiroshima or considers the vulnerability of American cities."

Seeking further data on the effect of the atomic bomb, principally, but not entirely, upon naval vessels at sea, a series of tests, under the direction of the Joint Chiefs of Staff, were authorized to be held at the Bikini Atoll in the Marshall Group in the Pacific. For the purpose there was organized Joint Army-Navy Task Force One to conduct what was known as "Operations Crossroads" Three tests were scheduled: first an explosion above the water, second, a surface or subsurface explosion, and then, sometime in 1947, a deep under-water explosion. The first two were held, but the third was postponed indefinitely.

Vice Admiral W. H. P. Blandy, U.S. Navy, was appointed commander of the Joint Task Force, but to assist him and to watch out particularly for the Army ground and air phases, a number of Army officers were appointed on his staff. Major General Leslie R. Groves, U S. Army, commanding General of the Manhattan District, was selected as a liaison officer. See BIKINI TESTS.

The Army Ground Forces were given opportunity to test equipment, both on the target ships and ashore. On the Atoll the Army placed guns and other combatant equipment and constructed various types of dugouts.

Equipment, fuel, and supplies were put aboard 19 of the target vessels and more than 100 different items of ordnance materiel were arranged within the target area. Exposed to the bomb's effect were samples of clothing, fruits, vegetables and cereals, both processed and fresh. The Army Quartermaster Corps placed out standard test lots of Army rations, some stored in protected positions and others exposed. A variety of textiles were included to give data on clothing that will withstand the flash and blast.

The first test was held July 1 and the second on July 25. From the data collected through instruments and observation and the analysis of materials within the blast area, the dugouts, the weapons, etc., study is still underway to help guide the Army in its future development program and procedures it must follow if atomic warfare is not effectively ruled out.

Official reports on the Army's observations have not been made public but unofficially it is said that the tests demonstrated that soldiers in dugouts or tanks would survive such a blast from as close as 500 yards and be able to continue fighting Artillery and heavy equipment, and ammunition when stored in containers, will remain useable. Lighter and more delicate equipment, however, it was reported, such as amphibious trucks, jeeps, searchlights, and radio equipment, was heavily damaged at distances as great as 1,200 to 1,500 yards. Much of the exposed textiles, clothing, blankets, etc., caught fire and burned from the flash effect up to great distances. Much of the packaged foods showed no effect of radiation, although soap and powders appeared to retain radioactivity longer than other materials.

Subsequently, General Jacob L. Devers, U.S. Army, Commanding General Army Ground Forces, expressed a belief that the atomic bomb would not prevent such Army operations as amphibious landings He added:

"We will have to go after the sources of atomic bombs and destroy them and from there on you will have the same thing as before—the need for ships, planes, and the doughboy. He is still the one who can occupy the enemy's territory and hold it."

Guided Missiles. By a directive issued October 7, the Secretary of War assigned to the Commanding General of the Army Air Forces, the responsibility for the research and development activities pertaining to guided missiles, including corresponding counter measures, as well as related and associated items of equipment.

This settled in favor of the air forces long standing differences between the various technical services, such as Ordnance, as to the dividing line between their responsibility and that of the Air Force. There had been a general ruling that all guided missiles equipped with wings were air force projects and others belonged to the ground technical services. However, the October ruling appeared to give over-all authority to the Air component.

Throughout the year, U.S. Army forces carried on tests with German long range rockets. Large numbers of German scientists who worked on the various projects were employed by U.S. Army ground and air forces to aid in the further development of these new types of weapons.

Unification of U.S. Defenses. Unification of the Armed Forces into a single Department of Common Defense, so ardently urged by President Truman and the War Department, but so strongly opposed by the Navy's adherents, was recommended by the Senate Committee on Military Affairs, but

was not brought to a vote on the floor before adjournment of the 79th Congress. Nevertheless, the President and the plan's supporters in Congress announced their intention of bringing it before the 80th Congress. Its ultimate success, they believed, would be brought nearer by enactment of the plan for the reorganization of Congress, a section of which provides for the consolidation within each house of Congress of its Committees on Military and Naval Affairs into a single Committee on Armed Services. The Reorganization Act adopted by the 79th Congress provides that the Committee on Armed Services in each house will be responsible for:

". . . all proposed legislation, messages, petitions, memorials, and other matters relating to the following subjects:

"(1) Common defense generally.
"(2) The War Department and the Military Establishment generally.
"(3) The Navy Department and Naval Establishment generally.
"(4) Soldiers' and sailors' homes
"(5) Pay, promotion, retirement, and other benefits and privileges of members of the armed forces.
"(6) Selective service
"(7) Size and composition of the Army and Navy.
"(8) Forts, arsenals, military reservations, and navy yards.
"(9) Ammunition depots.
"(10) Conservation, development, and use of naval petroleum and oil-shale reserves"

Unify Field Commands. Since the end of hostilities and during the discussion of the proposal to unify the armed forces in a single department, the services actually drifted away from the system of unified commands in the field which the war had forced upon them. So far had this trend gone that the charge was frequently made that the defense of Hawaii was again under the same type of divided command which investigators said contributed to the success of the Pearl Harbor attack.

Consequently, near the end of the year the Joint Chiefs of Staff drew up, and President Truman approved, a system of unified military commands "designed to place responsibility for the conduct of military operations of the land, naval, and air forces in the several regions of military importance to the United States, in the hands of one single commander."

The commands designated at that time (December 17) were:

(1) Far East Command—Commanded by General of the Army Douglas MacArthur, U.S. Army.
(2) Pacific Command—Commanded by Admiral John H. Towers, U.S. Navy.
(3) Alaskan Command—Commanded by Major General H A. Craig, U.S. Army.
(4) Northeast Command—Commander not named.
(5) Atlantic Fleet—Commanded by Admiral Marc A. Mitscher, U.S. Navy.
(6) Caribbean Command—No change for the time being.
(7) European Command—Commanded by General Joseph T. McNarney, U.S. Army.

Also established was a Strategic Air Command comprised of strategic air forces not otherwise assigned. These forces will normally be based in the United States and their commander will be directly responsible to the Joint Chiefs of Staff.

British Unified Defense. The new Labor Government in Great Britain, in a White Paper presented to Parliament by the Prime Minister in October, proposed the establishment of a "Central Organisation for Defense." Under this plan the three services—army, navy, and air force,—would be retained as separate services under their separate Ministries, but there would be created a new Minister of Defense" who would be responsible for correlating them.

The White Paper rejected both complete amalgamation and the creation of a Combined General Staff. Of complete amalgamation under a single Minister of the Crown, the White Paper said: "His Majesty's Government does not wholly reject this conception: it may be that at some stage in the future amalgamation might be found desirable. They have decided, however, that this is a step which could not and should not be taken here and now." On the "Combined General Staff" idea the White Paper commented: "Critics of our organization have contended that the Chiefs of Staff Committee, and the Joint Staffs for planning, intelligence, and administrative planning, do not form a combined General Staff in the sense of an impartial central organization which plans operations without regard for Service prejudice or sectional interests. Our own experience, however, and a close study of captured German archives showing the working of the *German Oberkommando der Wehrmacht (O.K.W.)*, combine to demonstrate that this conception is not only inferior to our Joint Staff system, but has defects which in practice proved disastrous. The German system failed because the Planning Staffs of the *O.K.W.* were not drawn from the headquarters of the three Services. The plans they produced had later to be handed to those headquarters for execution, and were often found to be unrealistic. The cleavage between planning and execution set up dangerous antagonisms, and entirely nullified any theoretical advantages of the German system."

The form of the proposed organization was summarized as follows:

"(a) The Prime Minister will retain the supreme responsibility for defense.
"(b) The Defense Committee, under the Chairmanship of the Prime Minister, will take over the functions of the old Committee of Imperial Defense, and will be responsible to the Cabinet both for the review of current strategy and for coordinating departmental action in preparation for war.
"(c) A new post of Minister of Defense, with a Ministry, will be created. The Minister of Defense will be responsible to Parliament for certain subjects . . affecting the three Services and their supply. In addition, he will be Deputy Chairman of the Defense Committee, and he will also preside over meetings with the Chiefs of Staff whenever he or they may so desire.
"(d) The Chiefs of Staff Committee will remain responsible for preparing strategic appreciations and military plans, and for submitting them to the Defense Committee, and the Joint Staff system will be retained and developed under their direction.
"(e) The Service Ministers will continue to be responsible to Parliament for the administration of their Services in accordance with the general policy approved by the Cabinet and within the resources allotted to them."

The White Paper outlined the functions of the Minister of Defense as follows:

"Apart from his duties as Deputy Chairman of the Defense Committee, it is proposed that the Minister of Defense should, as such, be responsible for the following functions:
"(a) The apportionment, in broad outline, of available resources between the three Services in accordance with the strategic policy laid down by the Defense Committee. This will include the framing of general policy to govern research and development, and the correlation of production programs.
"(b) The settlement of questions of general administration on which a common policy for the three Services is desirable
"(c) The administration of inter-Service organizations, such as Combined Operations Headquarters and Joint Intelligence Bureau.
"The minister will bring his proposals under (a) before the Defense Committee and the Cabinet. He will present the Cabinet's decisions on these to Parliament, and will decide questions arising between the three Services in their application. He will not be responsible for the subsequent detailed execution of the approved programs, which will be the task of the Service and Supply Ministers. As a consequence of (b), he will answer questions in Parliament on matters common to the three Services or to the three Services and the Ministry of Supply."

Departmental Organization. Effective July 11, the United States War Department was reorganized so as to make the War Department General Staff the dominant agency not only in the formation of plans but also in the direction, coordination, and supervision of virtually all operations of the Army. The Army Ground Forces and the Army Air Forces were retained, but the Army Service Forces' organization was abolished and its functions redistributed. The nine "Service Commands," were dropped and six "Army Areas" were set up. The autonomy of the Army Air Forces was strengthened and its representation on the new and more powerful General Staff was increased.

In connection with the reorganization it was made known that the Department will propose legislation to abolish the Chiefs of Infantry, Cavalry, Field Artillery, and Coast Artillery, positions which have not been filled since the Army Ground Forces were established early in the War. It was also announced that the Field and Coast Artilleries will be merged into a single Artillery arm such as existed before their separation in 1907 and that the Cavalry and the Armored Force will be combined into a single arm to be known as Armored Cavalry.

The 1946 reorganization, with such modifications as experience dictates, is to be the basis for permanent legislation for the postwar Army. The reorganization is, of necessity, temporary since it was accomplished under authority of the War Powers legislation.

The crux of the new organization lies in the greater powers and authority given to the War Department General Staff beyond the purely planning functions envisioned in the National Defense Act, Section 5 of which provides that:

"members of the General Staff . . . shall not be permitted to assume or engage in work of an administrative nature that pertains to established bureaus or offices of the War Department, or that, being assumed or engaged in by members of the General Staff Corps, would involve impairment of the responsibility or initiative of such bureaus or offices, or would cause injurious or unnecessary duplication of or delay in the work thereof."

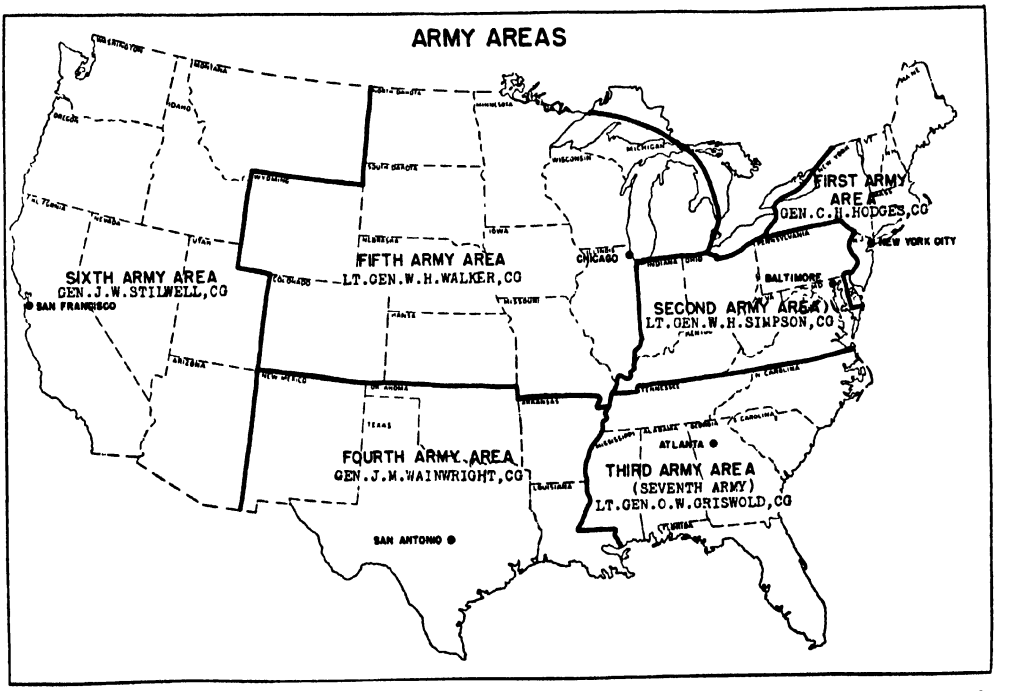
The 1946 reorganization gives the Staff the following broad powers (from War Department Circular 138):

"The War Department General Staff, under the direction of the Chief of Staff, will be responsible for the development of the Army and will insure the existence of a well-balanced and efficient military team. It is specifically charged with the duty of providing such broad basic policies and plans as will enable the Commanding Generals of the Army Ground Forces, the Army Air Forces, task forces, theaters of operations, oversea commands, and such other commands as may be established, and the heads of the administrative and technical services, to prepare and execute detailed programs. In addition, the General Staff assists the Chief of Staff by issuing in the name of the Secretary of War and the Chief of Staff, necessary directives to implement such plans and policies and supervises the execution of these directives. In performing its duties the General Staff follows the principle of decentralization to the fullest degree. No function will be performed at the general or special staff level of the War Department which can be decentralized to the major commands, the army areas, or the administrative and technical services without loss of adequate control of operations by the General and Special Staffs. The War Department General Staff will include six divisions, each under the immediate control of a director. Each director will plan, direct, and supervise the execution of operations within the confines of his sphere of action. In carrying out their duties, the directors of the six General Staff Divisions will be guided by the following general principles

"(a) They will plan, direct, coordinate, and supervise. They will assist the Chief of Staff in getting things done, in addition to coordinating, planning, and policy-making on an Army-wide level.

"(b) They will, by means of direct contact with troops, determine that orders, instructions, and directions are being carried out as the Chief of Staff intended

"(c) They will follow the principle of decentralization to the fullest degree The War Department General Staff will concern itself primarily only with matters which must be considered on a War Department or Army-wide level All other matters will be decentralized down to the proper



The areas assigned to the six field Armies as provided in the reorganization of July 11, 1946, show the commanding generals assigned as of that date. (The Seventh Army was temporarily assigned to the Third Army Area, the Third Army being on occupation duty in Germany.)

echelons of command for action or decision. In order for this to be done properly, adequate authority will be delegated to responsible commanders and the heads of the administrative and technical services. Each director will take necessary action to indoctrinate each officer of his division with a thorough understanding of the duties, functions, responsibility, and authority of the various echelons of command in the Army.

"(d) They must act to minimize duplication. While observing the principle of decentralization, all general staff directors will take appropriate action to minimize duplication and overlapping between the commands and services. This subject becomes of increasing importance as procedures are approved providing for greater autonomy for the Army Air Forces within the War Department structure. "The aim will be to provide the Army Air Forces with the maximum degree of autonomy permitted by law without permitting the creation of unwarranted duplication in the functions of service, supply, and administration. The only workable procedure for removing and preventing duplications lies in the good faith and friendly collaboration of using commands and services, under the monitorship of the appropriate general staff director."

Brig. Gen. Williston B. Palmer, U.S. Army, commandant of the Army Information School, in a lecture on the new organization, said:

"The reorganization of 1946 confirms and consolidates the victory in a long struggle toward an Army High Command capable of conducting war. For today, after 150 years of groping, the professional head of the Army is the Chief of Staff chosen from the line of the Army; and under him the General Staff, chosen from the whole of the Army, has the power to plan, direct, coordinate, and supervise the operation of the Army.

"The line of the Army, after a century and a half, has taken control of the Army away from a collection of independent cliques in the War Department, which in the old days were self-perpetuating, had many favors which the line had not, denied the right of the professional head of the Army to coordinate their military effort, and took professional and technical questions over his head to the Secretary of War.

"The civilian head of the War Department still directs the Chief of Staff in the sense that the President desires, but the details of Army administration and operation are in the hands of the professional Chief of Staff, and if the Chief of Staff does not perform his duties to the satisfaction of the President and the Secretary of War, the remedy is simple: appoint a new Chief of Staff who will satisfy the President and the Secretary of War The organization of the High Command of the Army now makes sense, for the first time in our history."

Under the reorganization the Assistant Chiefs of Staff were made "Directors" as follows: Director of Personnel and Administration, Director of Intelligence, Director of Plans and Operations, Director of Organization and Training, Director of Service Supply and Procurement, and Director of Research and Development.

Army Air Forces Organization. In March General Carl Spaatz, U.S. Army, Commanding General Army Air Forces, announced organizational changes providing for three major combat commands and five supporting commands operating under Headquarters, Army Air Forces. Simplicity of structure was sought by having not more than eight individuals reporting directly to the Commanding General AAF.

The three combat commands established were:

(1) The Strategic Air Command, embodying the combat groups of the long range fighting forces

(2) The Air Defense Command, to be responsible for the air defense of the continental United States and for the coordination of the continental air units, including the Air National Guard and Air Reserve, into effective fighting forces

(3) The Tactical Air Command, charged with cooperative missions with the surface forces.

Immediately under these commands come the numbered Air Forces.

In addition to the three combat commands there was established:

(1) The Air Materiel Command, to perform normal maintenance and supply functions as well as research and development,

(2) The Training Command, to provide all phases of individual training except the higher education carried on in the Air University and the unit training conducted in the three combat commands.

(3) The Air Transport Command, to provide the global systems, including military air transport, air signal communications, flight service, weather, rescue, flying safety, and aeronautical chart service.

(4) and (5) the Air University and Air Force Proving Ground Command, two agencies whose functions are to crystallize and to disseminate the latest Air Force doctrine through training programs and through tactical experimentation.

In explaining the organization, General Spaatz said:

"The Commanding General of the Army Air Forces ordinarily will exercise only administrative, training, and tactical supervision over the air units assigned to a theater. Under certain conditions of employment of units of the Strategic Air Command, however, his function may be extended to the exercise of complete command control, as was the case originally with the 20th Air Force."

Divisional Organization. The first large scale revision of the combat division organization to follow World War II was approved by General of the Army Dwight D. Eisenhower, Chief of Staff, U.S. Army, near the close of the year.

These changes in the Infantry and Armored Divisions were based on recommendations submitted by former division and unit commanders, the General Board of the European Theater of Operations which sat at Bad Nauheim in 1945–46, and the Infantry, Armored, and Artillery Conferences held at service schools in the spring of 1946. Combat lessons learned in all theaters of action during the war were incorporated in the new organizations.

Infantry Division. The newly approved war strength American infantry division numbers between 17,000 and 18,000 officers and enlisted men, an increase of more than 3,000 over its World War II strength.

The most important changes include:

(1) Inclusion of an organic tank battalion.

(2) Inclusion of an organic antiaircraft artillery battalion

(3) Addition of two more howitzers to each of the 12 firing batteries of the division artillery, increasing its firepower 50 percent

(4) Reduction of the Infantry squad from 12 to 9 men.

(5) Addition of a fourth company and a bridge platoon to the engineer battalion

Included in the plans for each regiment is a headquarters company, a service company, and three battalions consisting of a headquarters company, heavy weapons company and three rifle companies each; a tank company (in addition to the headquarters and three combat companies of the organic battalion under division control); a heavy mortar company armed with the 4.2 mortar, and a medical company.

Eliminated as a result of this new alignment will be the anti-tank and cannon companies, and the collecting company which was a part of the divisional medical battalion.

During World War II, especially in the Mediterranean and European theaters, each division generally had separate battalions of tanks and antiaircraft artillery detailed to provide it with their types of specialized support. Tactically, this arrangement proved sound, but administratively it led to difficulties. By including these battalions organically in the division, it is believed that greater efficiency may be achieved.

The inclusion, however, of a company of tanks in each regiment as well as a battalion in the division means that the number of tanks working with the division as a whole will be doubled. In World War II each division usually had three tank companies working with it, but the division of the

future will have six, armed with the big M-26 "General Pershing" tank mounting a 90-mm. gun.

Division artillery will still consist of three battalions of 105-mm. howitzers and one battalion of 155-mm. howitzers, but the number of pieces in each firing battery will be increased from four to six. Combat experience indicated that a battery could handle six guns without materially increasing its command and administrative overhead. This increase will give the division fifty-four 105-howitzers and eighteen 155-howitzers. During World War II all artillery in the infantry division was towed; it is still towed, but it is contemplated that towed guns will be replaced with self-propelled guns as soon as suitable models are developed.

A reduction in the size of the infantry squad from twelve to nine men was made because combat experience indicated that a squad leader could not control more than eight other men in battle. The future squad will have, besides its leader, an assistant squad leader, five riflemen, a Browning-Automatic Rifleman and the latter's assistant.

A fourth company has been added to the engineer battalion to give the division a spare. One company is usually detailed to work with each regimental combat team, to afford close, front-line support. When the battalion had only three companies, the division frequently was left without any engineers to handle other than front-line jobs. The added bridge platoon will have certain types of bridging material heretofore issued only to corps and army engineer units.

The new divisional medical battalion has been greatly reduced in size and scope. During World War II it had, besides its headquarters company, three collecting companies and one clearing company. The litter sections have been removed from the collecting companies and given to the regiments to achieve better control and services. The ambulance platoons of the old medical battalion's collecting companies have been combined to form an ambulance company.

Three changes have been made in the division special troops. The old headquarters for special troops has been abolished. The recent creation of a military police company in certain divisions has been standardized. A replacement company, supervised by seven officers and thirty-one enlisted men, has been added, this company's job will be to receive the division's replacements and prepare them for their battle assignments.

Several important types of equipment have been increased in the division, or added to it. During World War II, all the liaison planes were in division artillery, but an experimental increase from ten to sixteen planes is standard in the new setup. The additional "grasshoppers" will be assigned one to each regiment and three to division headquarters.

Radar equipment, which had been supplied to an interim-type division, had been made organic to the headquarters of division artillery and each regiment, to facilitate the location of enemy artillery and mortars. Forty-two 75-mm. and eighty-nine 57-mm. recoilless rifles will be included in the division's armament.

Armored Division. The newly approved U.S. armored division consists of approximately 15,000 officers and men, and incorporates an important change in its command organization. Modifications will be made to fit peacetime restrictions of personnel and materiel. During World War II, the combat elements of the division were grouped under Combat Commands "A" and "B," and a small fraction held for contingencies under Combat Command "R," or Reserve. The new setup will substitute a Combat Command "C" headquarters for the old reserve headquarters, creating three command headquarters of equal capabilities.

During the war the United States had sixteen armored divisions, all of which saw action in either the Mediterranean or European theaters, and many in both. Thirteen of these had an authorized strength of 10,000, but the 2nd and 3rd Armored Divisions were activated under a table of organization which authorized 14,000. The 1st Armored Division fought in Africa and part of the way through Italy with an authorized strength of 14,000, before reorganizing on the same basis as the majority of the divisions.

Regardless of the type of organization, combat experience indicated that the ratio of infantry to tanks was insufficient. To remedy this shortcoming, an entire battalion of infantry will be added to the division, and the strength of each existing infantry battalion will be increased from three to four rifle companies, increasing the number of rifle companies from nine to sixteen.

As with the infantry division, the armored division infantry squad will be reduced in size, but in this case to ten men. The tenth man will drive the squad's full-tracked personnel carrier.

An added heavy tank battalion will be equipped with the M-26 "General Pershing" tank. Like the division's three medium tank batallions, it will consist of three tank companies of four platoons each, making the tank battalions of the armored division identical with the tank battalions of the infantry division.

The M-26 has recently been classified as a medium tank, but will be issued to the heavy battalions until a new heavy tank is brought out.

Artillery and anti-aircraft battalions are also added to the armored division, under control of division artillery headquarters. The additional artilpelled 155-mm. howitzers, and each of the other three battalions will have 18 self-propelled 105-mm. howitzers. The anti-aircraft battalion will have 64 self-propelled weapons, half of them quadruple .50 caliber machine guns and the other half dual 40-mm. guns.

Other additions to the division include a bridge company and an additional line company for the engineer battalion, and a supply battalion of two truck companies. A major deletion will be the tank destroyer battalion which was usually detailed to work with the division in combat; its work will be taken over by the extra tank battalion with its 90-mm. guns.

The division special troops will include signal, military police, replacement and headquarters and service companies. The division trains will consist of a headquarters company, an ordnance maintenance battalion of a headquarters and three maintenance companies, and a medical battalion of a headquarters and three medical companies. The supply battalion will be included in the division trains.

An important change in equipment will be the addition of 530 full-track personnel carriers to transport the infantry. During the war, the armored infantry rode to battle in half-tracks.

The division will lose 28 light tanks, but will gain 130 medium tanks, for a total strength in mediums of 325.

Field Maneuvers. The importance being placed on the Arctic regions by the military leaders was emphasized in the decision of the United States high command to conduct three of its field training maneuvers as cold weather projects. Three

"task forces"' were designated to test all types of Army Ground Force equipment, including tanks, self-propelled guns, radars, special snow vehicles, new rations, kitchens, clothing, and other items under Arctic conditions.

To determine whether existing equipment will function and what new equipment is required for ground forces to fight under all winter conditions, certain items of equipment used in winter combat in the European Theater of World War II having proved unsatisfactory, task forces "Frigid," "Frost," and "Williwaw," were set up for exercises in Fairbanks, Alaska, Camp McCoy, Wisconsin, and Adak, Alaska, respectively.

After preliminary training, these task forces started their field work about October 1, 1946, and are scheduled to operate until about April 30, 1947, to ascertain the suitability of present equipment and new types of equipment to meet all possible winter combat conditions. At the same time they are studying the need for changes in existing tactical doctrines and training methods for winter operations.

General of the Army Dwight D. Eisenhower, U.S. Army, Chief of Staff, discussing the Arctic area at a press conference in October, however, gave as his opinion that its importance lies principally in the strategic airplane routes over the polar area rather than as a battlefield. General Eisenhower said:

"People have discovered that with the increasing range of the big airplane the shortest distance around the earth to countries that are lying in the Northern Hemisphere is right over the Arctic. So that is the reason they show so much interest in the Arctic region And another thing, all weather starts in the Arctic. They want to get more meteorological data and so improve our weather services. With the facilities man now has there is a limit to the temperature under which we can operate. In the Bulge (Battle of Ardennes) the temperatures reached zero, and our struggle to get men out of the cold was a terrific thing because we found that very quickly wounds would be fatal because of low temperature If you have fighting temperatures even of 40 degrees you must have highly trained troops I wouldn't look, in other words, for the wastes of the Arctic to be the battlefields as you knew battlefields in France and Germany."

The fourth large exercise of the 1946 training season was an amphibious one using the 162 separate combat amphibious operations in World War II as a guide. It was a joint Army-Navy maneuver held in the San Diego–San Clements Island–Oceanside area of Southern California.

Initial preparation for the operations included indoctrination school at Fort Ord and Coronado, California, from July 29 to September 30. During October intensive basic training in amphibious operations was given at Fort Lewis, Washington, the Second Infantry Division being assisted by the Navy Troop Training Unit. Beginning November 1 units of the Second Division and supporting troops were combat-loaded in the Tacoma-Olympic area in ships of the Amphibious Force, U S. Pacific Fleet, and at the conclusion of the exercise were returned to Fort Lewis. Aircraft from carriers of the Pacific Fleet supported the amphibious operation and battleships, cruisers, and destroyers delivered gunfire support.

Headquarters 12th Air Force, March Field, California, worked with units of the Sixth Army in the planning and conduct of the tactical air support of the assault troops. The amphibious exercises ran from September 1 to December 1.

Education. The school system by which the officer and enlisted personnel of the Army of the United States are to be kept professionally fit and abreast of modern warfare was in process of development throughout the year. Basis for the new school system is the report of the War Department Military Education Board appointed by the Secretary of War in November 1945. The report, and recommendations were submitted in February 1946.

For officer training the new system set up schools at five general levels "to provide broad military education and practical training for officers." Three of these school levels are strictly War Department institutions:

(1) Air and Ground basic schools, (2) Air and Ground advanced tactical and technical schools, and (3) the Command and Staff College and the Air College.

The two higher levels fall under the jurisdiction of the Joint Chiefs of Staff inasmuch as officers from all the Armed Services attend them. They are:

(1) the Armed Forces Staff College and (2) the National War College and the Industrial College of the Armed Forces.

In this system provision has been made for the inclusion of officers of the National Guard and the Reserve through short-term "associate" courses, extension courses, and the regular or full-term courses.

In addition to this strictly military education officers will be selected to pursue special technical courses at civilian colleges and universities. Others will attend foreign schools, while still others will be trained in industrial and manufacturing concerns. There will, too, be an interchange of students with schools operated by the Navy.

The three higher schools under the Joint Chiefs of Staff are designed to bring about that coordination and mutual understanding which the war showed to be so necessary. The Armed Forces Staff College, located at Norfolk, Virginia, trains officers in the coordination of the various services for joint operations, including staff techniques and the responsibilities, strategical, tactical and logistical, of commanders in joint operations.

The National War College, located in Washington, D.C., includes personnel from the Department of State as well as the Armed Forces in its staff and faculty and student body. It provides instruction to insure the nationally efficient development, organization, and employment of armed forces and the utilization of the Nation's resources to support those forces in the furtherance of national policy.

The Industrial College of the Armed Forces, also located in Washington, D.C., prepares officers for duty with those activities which are concerned with industrial mobilization and procurement planning, evaluates economic war potentialities and studies and analyzes current plans for industrial mobilization.

In November, under the pressure of the necessity for economy and to further streamline the organization, the Army Ground Forces reorganized its school setup, consolidating many of its schools and eliminating others. Four general Centers were established as follows:

I The Armored Center at Ft Knox, Ky.
II. The Artillery Center at Ft Sill, Okla
III. The Infantry Center at Ft Benning, Ga
IV. The Ground General School Center, at Ft. Riley, Kans.

Effective November 1 the following were eliminated, most of their functions having been absorbed in the new Centers: The Airborne School, the Air Training School, the Cavalry School, the Intelligence School, the Coast Artillery School, and the Anti-aircraft Artillery School. The Mountain and Winter Warfare School was scheduled to be eliminated June 1, 1947.

The former Command and General Staff School became, in May 1946, the Command and Staff College, with the assigned mission of producing qualified commanders and staff officers of the Ground Forces at division and higher levels. It consists of four schools analagous to the general divisions of the General Staff—School of Personnel, School of Intelligence, School of Combined Arms, and School of Logistics.

The new Air University of the Army Air Forces opened at Maxwell Field, Alabama, in September. The top echelon of the new institution is the Air War College designed to prepare senior officers for command and staff duty of higher Air Force units. Here they will study organization, characteristics, and strategical and tactical employment of the Air Forces and larger units, the selection of target systems, targets and aiming points, strategic considerations concerning defense against air attack with particular emphasis upon possibilities inherent in new developments, and the effects of the application of atomic energy in aerial warfare.

The Air Command and Staff School is designed to train officers to command Groups and Wings and for comparable senior staff positions.

The Air Special Staff School, at Craig and Gunter Field, Alabama, prepares officers for administrative and technical assignments on the staff of groups and higher units.

The AAF Institute of Technology at Wright Field, Ohio, trains officers in the technical development of equipment and efficient operation of procurement, supply, maintenance and engineering.

The AAF School of Aviation Medicine at Randolph Field, Texas, conducts courses for aviation medical examiners, aviation nurses, air evacuation, and basic and advanced courses for Air Force medical officers.

The Air Tactical School, scheduled to open in the Spring of 1947, at Tyndall Field, Florida, will prepare younger officers for command of squadrons and for staff duty comparable to the squadron grades.

National Guard. In accordance with general policies decided upon by the War Department in the fall of 1945, actual enrollment of officers and enlisted personnel in the National Guard of the United States began in the Summer of 1946.

Instead of the 18 divisions which comprised the prewar National Guard establishment the authorization provides for 25 Infantry Divisions, two Armored Divisions, and separate anti-aircraft artillery, Armored Cavalry, Engineers, Field Artillery, Medical, Ordnance, Quartermaster, Tank, and Signal troops, to make a total of 620,000 Ground Force strength in the National Guard. In addition there is provided a total of 58,000 Air troops, and 4,000 men for Headquarters and Headquarters Detachments for administrative personnel in the offices of the Adjutants General of the States.

Of the total authorized strength of 682,000, however, it is not anticipated that more than 514,000 will be enrolled within the period of the first two years.

Organized Reserves. A greatly reorganized Army Reserve also was getting under way during the year. Unlike the prewar model the new Organized Reserve includes both officer and enlisted personnel and legislative authority will be sought so that they may be trained in "Armory Drills" and 15-day summer field exercises similar to the National Guard. A strength of about 24 ground force divisions is planned, plus air force components.

Units in the Active Reserve were being organized as follows:

(1) Class A-1—Service type units at full strength of officers and enlisted men, fully equipped and trained during peacetime. A maximum number of Class A-1 units will be affiliated with civilian industry. Those units for which no sponsor can be found will be organized on a non-affiliated basis.

(2) Class A-2—Combat type units organized at full strength of officers and enlisted men, fully equipped and trained.

A portion of the equipment for these units will have to be retained in storage, since the ORC is not expected to have sufficient armories of adequate facilities to maintain full equipment with each unit.

(3) Class B—Combat and service type units organized with full strength of officers and at least a cadre of enlisted men. Essential individual and training equipment will be provided these units

(4) Class C—Combat and service type units organized with full strength of officers only.

Personnel Strengths. The United States Army, which entered World War II on December 7, 1941 with a personnel strength of 1,686,403 and reached a peak of 8,300,000 at the time of Germany's collapse, had declined to about 1,500,000 at the close of 1946.

Great Britain closed the year with about the same total manpower strength in active service.

The Soviet Army strength has not been officially made public but observers generally credited it with about 3,000,000 men in service.

China's national government, because of internal conditions, maintained a strength of about 2,700,000 in 1946, while the so-called Chinese communists were supposed to be supporting another 1,000,000 men in service.

France, in the process of reconstituting her military strength, maintained an army of 150,000 men.

Yugoslavia reputedly was fortified with an army of 800,000.

Spain, not a participant in the last war, is reported to have an Army of about 300,000.

In South America, Brazil is credited with about 100,000 men under arms, while Argentina was second with 45,000, and Chile third with 40,000 men.

Mexico maintained about 40,000.

All military forces were denied Japan and Germany.

LEROY WHITMAN.

MINERALS AND METALS. For the first time since 1938, the total value of mineral production moved downward, according to the annual report of the Bureau of Mines for 1945, the latest date for which returns are available. The recession followed three successive peak years, years in which minerals were mined in the United States in unprecedented quantities to meet the demands of war for essential raw materials. Total value in 1945—$8,143,000,000—was 3.3 percent below the 1944 peak of $8,419,000,000 but 47.0 percent above the World War I high value of $5,540,708,000 recorded in 1918 and 16.6 percent more than the prewar high of $6,981,340,000 established in 1920. The decline in total value in 1945 was directly attributable to a decrease in the physical volume of production that more than offset a slight increase in the unit sales realizations of mineral producers.

Production in the mineral industries was again retarded by a shortage of manpower. The total labor force, which in 1944 declined 9 percent compared with 1943, shrank 6 percent in 1945 compared with 1944. Decreased demand for some minerals following termination of war contracts and labor disturbances, principally in the coal industry, resulted in a 10-percent reduction in total man-hours worked in 1945; this reduction continued the trend of 1944, when a 1-percent reduction was registered. Other factors adversely affecting

mineral production included the lag in industrial reconversion from wartime to peacetime operations following V-J day; the difficulty and, ofttimes, inability experienced by mining interests in obtaining necessary supplies and equipment required to replace that worn out in the course of expanded production effort during the war period; increasing costs; and, in the instance of some minerals, the depleted state of ore reserves owing to heavy production over the war years without compensating development work to maintain such reserves at prewar level.

Industrial production reached its peak in the latter part of 1943, according to the monthly index of the Federal Reserve Board; the trend since then continued virtually steadily downward through 1944 and 1945. The Board's annual index of mineral production reached its highest level in 1944 and declined 2.1 percent in 1945. Although the consumption of some mineral commodities, particularly the liquid fuels and fertilizer minerals, established new records in 1945, that for many others, including most of the more important metals and coal, dropped appreciably, with the result that total mineral consumption in all probability decreased slightly. Total mineral production likewise declined, the gain made by the fuels as a group and the other nonmetals failing to offset the substantial losses in output suffered by the metals. Both Government and industry stocks were lower at the end of the year, despite increased imports; Government inventories were pared down markedly as the need for war munitions diminished.

Price levels, as reflected by producers' unit realizations, moved upward in 1945; metals and fuels exhibited the more important gains. The increase in producers' price realizations, which was estimated at 2.4 percent over 1944, compared favorably with the 1.7-percent rise in the Bureau of Labor Statistics indexes of wholesale prices for all commodities.

Value of Mineral Output. The 3.28-percent decline in the total value of mineral production in 1945 resulted from a 15.60-percent decrease in the value of metallic output. Value of the production of fuels was 0.66 percent higher and that for the other nonmetallics 6.10 percent greater. Although metals represented only 24.3 percent of the total value, whereas fuels represented 64.0 percent and other nonmetallics 11.7 percent, the sharp drop in metallic valuation more than offset the gains made by fuels and the other nonmetallics. Comparative valuation figures in 1944 and 1945, with the 1944 figures in parentheses, were as follows: Total mineral production, $8,143,000,000 ($8,419,000,000); metallic, $1,975,000,000 ($2,340,000,000); fuels, $5,212,000,000 ($5,178,000,000); and other nonmetallic, $956,000,000 ($901,000,000). Trends in the production value of these branches of the mineral industries since 1880 are shown in figure 1.

In marked contrast to the situation in 1944 when minerals scored a 4-percent gain in value that compared favorably with advances made in other parts of the economy, the 3.28-percent decline in mineral value in 1945 compared with a 2.89-percent increase in gross farm income, as reported by the United States Department of Agriculture ($23,893,000,000 in 1944 and $24,584,000,000 in 1945, including Government payments), and with an 0.80-percent increase in gross national product from $197,600,000,000 in 1944 to $199,200,000,000 in 1945. War expenditures comprised 35 percent of gross national product in 1945 and 42 percent in 1944. National income increased 0.19 percent from $160,700,000,000 to $161,000,000,000 (unrevised), according to the United States Department of Commerce. Compared with 1939 the value of mineral production in 1945 had increased only 66 percent whereas gross farm income increased by 133 percent, gross national product by 123 percent, and national income by 127 percent.

Explanation of the decline in mineral value in 1945, in the face of the aforementioned increases, may be attributed to several factors. Some minerals, notably gold, silver, and certain building materials, were adversely affected by war conditions, and after V-J day the rate of improvement was so slow in the respective industries that for the year their downward trends of 1944 were continued. Manpower shortages and labor disturbances were outstanding deterrents in the attempt to meet existing demand for some minerals, particularly coal and a number of the metals. Difficulty in obtaining mining supplies and new equipment to replace that worn out during the war period also retarded the execution of plans for reconversion to peacetime operation in many mineral industries. Moreover, as will be shown later, the prices of minerals over the war years advanced much less than those for other commodities; in consequence, upward movement of the total value of mineral production has been impeded.

Consumption. Over-all consumption of mineral commodities in 1945 reflected the lag in reconversion of industry for peacetime purposes from the wartime efforts of the immediately preceding years. Although about the same number of individual increases and decreases in consumption was recorded in a statistical analysis of 74 of the more important minerals, total mineral consumption was in all probability on a decreased scale as compared with 1944. Consumption of each of the major nonferrous metals—copper, lead, zinc, and tin—and of iron ore declined. Petroleum, natural gas, and natural gasoline consumption increased, but the consumption of anthracite and bituminous coal decreased; collectively, the energy supply from these 5 mineral fuels declined 4 percent. Slow improvement in certain categories of the construction industry resulted in decreased consumption of several of the nonmetallic minerals used for construction purposes.

The Federal Reserve Board index of industrial production declined from 235 in 1944 to 203 in 1945 (1935–39 average=100) after advancing to 239 in 1943 from 89 in 1938 and 109 in 1939. The monthly record shows that the peak war production was attained in October and November 1943, when the adjusted index stood at 247; from January to December 1944 the monthly index declined from 243 to 232 and from January to December 1945 from 234 to 163. The durable manufactures index, which was 78 in 1938 and 109 in 1939, rose to 360 in 1943, declined to 353 in 1944, and fell to 274 in 1945. The production index for transportation equipment, including airplanes, automobiles, ships, railroad cars, and locomotives, advanced from less than 100 early in 1939 to a peak of 786 in November 1943, fell back to 709 in December 1944, and dropped to 217 in December 1945.

Contract terminations, manpower shortages and labor disturbances, difficulties in obtaining necessary equipment and supplies, and other obstacles to expeditious industrial reconversion to peacetime operations were the principal underlying causes of decreased mineral consumption in 1945. Steel production decreased 11 percent, involving a 14-percent reduction in the consumption of iron ore and an 8-percent decrease in the demand for manganese

MINERAL PRODUCTION BY STATES, 1945
(*U.S Bureau of Mines*)

State	1944	1945	Rank	Percent of Total for U S.	Principal Mineral Products
Ala	$109,149,000	$111,158,000	15	1 61	Coal, iron ore, cement, stone
Alaska	6,903,000	10,210,000	37	.15	Coal, gold, platinum metals, stone
Ariz.	115,592,000	98,553,000	16	1.43	Copper, gold, zinc, silver
Ark	68,681,000	62,772,000	24	.91	Bauxite, petroleum, coal, natural gas
Calif	607,302,000	627,306,000	3	9 08	Petroleum, natural gas, natural gasoline, cement
Colo	80,202,000	76,862,000	21	1.11	Molybdenum, coal, zinc, gold
Conn	4,496,000	3,492,000	45	.05	Magnesium, stone, clay products, sand and gravel
Del.	182,000	131,000	50	(a)	Clay products, sand and gravel, stone, raw clay
D C.	111,000	229,000	49	(a)	Clay products
Fla	21,852,000	24,995,000	30	.36	Phosphate rock, stone, cement, gravel
Ga	18,972,000	19,939,000	34	.29	Raw clay, stone, cement, clay products
Idaho	51,321,000	44,348,000	26	.64	Zinc, lead, silver, tungsten ore
Ill	330,971,000	332,489,000	5	4 81	Coal, petroleum, stone, sand and gravel
Ind	90,465,000	90,061,000	18	1 30	Coal, cement, petroleum, stone
Iowa	22,462,000	24,820,000	31	.36	Coal, cement, stone, clay products
Kans	217,876,000	210,187,000	9	3 04	Petroleum, natural gas, zinc, coal
Ky	276,701,000	268,858,000	8	3 89	Coal, natural gas, petroleum, stone
La	288,374,000	298,842,000	6	4 32	Petroleum, natural gas, natural gasoline, sulfur
Maine	2,146,000	2,483,000	46	04	Sand and gravel, cement, stone, slate
Md	15,264,000	15,030,000	35	.22	Coal, sand and gravel, cement, stone
Mass	5,260,000	5,447,000	41	.08	Stone, sand and gravel, lime, clay products
Mich	152,135,000	140,677,000	12	2 04	Iron ore, petroleum, salt, natural gas
Minn	170,465,000	167,140,000	11	2 42	Iron ore, manganiferous ore, sand and gravel, stone
Miss	18,940,000	21,816,000	33	.32	Petroleum, sand and gravel, clay products, raw clay
Mo	72,960,000	74,171,000	23	1.07	Lead, coal, cement, zinc
Mont.	89,052,000	75,816,000	22	1.10	Copper, petroleum, coal, zinc
Nebr	5,060,000	4,953,000	43	.07	Cement, sand and gravel, stone, petroleum
Nev	51,800,000	31,517,000	28	.46	Copper, magnesium, gold, tungsten ore
N H	1,166,000	801,000	47	.01	Mica, feldspar, clay products, stone
N J	33,794,000	31,253,000	29	.45	Zinc, sand and gravel, clay products, stone
N Mex	124,827,000	116,508,000	14	1 69	Petroleum, potassium salts, copper, natural gas
N Y	87,632,000	90,286,000	17	1 31	Petroleum, iron ore, zinc, salt
N C	22,199,000	14,457,000	36	21	Bromine, stone, clay products, mica
N Dak	4,393,000	4,551,000	44	07	Coal, sand and gravel, natural gas, clay products
Ohio	192,052,000	196,633,000	10	2 85	Coal, natural gas, stone, clay products
Okla	260,832,000	282,859,000	7	4 09	Petroleum, natural gas, zinc, natural gasoline
Oreg	9,657,000	9,398,000	38	.14	Sand and gravel, cement, stone, mercury
Pa	985,464,000	930,113,000	2	13 46	Coal, natural gas, petroleum, cement
R I	612,000	508,000	48	01	Stone, sand and gravel, graphite, clay products
S C	4,192,000	5,043,000	42	.07	Stone, clay products, raw clay, sand and gravel
S Dak	5,472,000	7,165,000	40	10	Gold, stone, raw clay, cement
Tenn	63,998,000	60,199,000	25	87	Coal, stone, zinc, cement
Tex	1,321,541,000	1,360,694,000	1	19 69	Petroleum, natural gas, natural gasoline, sulfur
Utah	149,558,000	129,386,000	13	1 87	Copper, coal, gold, zinc
Vt	7,672,000	8,233,000	39	.12	Stone, slate, talc, lime
Va	87,001,000	84,081,000	19	1.22	Coal, sand and gravel, zinc
Wash	36,483,000	31,588,000	27	.46	Cement, sand and gravel, coal, magnesite
W.Va	598,425,000	597,377,000	4	8 65	Coal, natural gas, petroleum, natural gasoline
Wis	22,794,000	22,213,000	32	.32	Stone, iron ore, zinc, sand and gravel
Wyo	74,175,000	81,105,000	20	1 17	Petroleum, coal, natural gas, iron ore

(a) Less than 0 01 percent

ore. With a decline of 19 percent in the production of alloy steels, a lower level of consumption was recorded for the major ferro-alloy minerals. The decreased scale of general industrial activity was also reflected in a 13-percent reduction in the consumption of anthracite and a 5-percent decrease for bituminous coal. Lead consumption declined 12 percent, tin, 6 percent; copper, about 10 percent; and zinc, 4 percent. The most precipitous drop in consumption, among the metallic mineral commodities, was that of 67 percent for magnesium; this sharp decrease resulted from a marked falling off in demand for the metal for war purposes. Consumption of bauxite dropped 30 percent, largely because of the reduced rate of production of alumina for the aluminum industry. The more important mineral commodities that achieved new records of consumption in 1945 included petroleum, natural gas, natural gasoline and liquefied petroleum gases, phosphate rock, potash, silver (in the arts and industries), platinum, mercury, titanium, barite, carbon black, and sulfur. On a percentage increase basis, the consumption of mercury was outstanding, demand for the metal increasing 49 percent, principally as the result of its utilization in the manufacture of an improved dry battery which was required in substantial quantities by the armed forces in 1945.

Employment. Manpower was scarce at mineral operations; and labor shortages, which had become progressively more acute since 1942, were continued through 1945. However, the continued downtrend in the number of men working daily was reversed soon after midyear and by the end of the year the labor-shortage problem had been eased to some extent. In the forepart of the year the labor supply had continued to shrink as Selective Service requirements for men for the armed forces were enlarged and production requirements for mineral raw materials were maintained at a high rate. The prompt termination of war contracts, the closing of munitions, armament, ship-building and other war-fostered industries, and the release of men from the armed forces shortly after the end of the Pacific war were factors in the uptrend in the number of men working during the latter part of the year. The easement of the labor shortages was greater in some mineral industries than was

indicated by the uptrend in the labor force owing to the declining demand for many mineral raw materials as war contracts were voided and the mineral-consuming industries were converted to peacetime production. Demand for raw materials was reduced further toward the close of 1945 by the wave of strikes that virtually closed several important mineral-consuming industries. Despite these factors fostering an abatement of the labor supply problem, manpower shortages were prevalent in the mineral industries at the end of 1945.

Concomitant with the easing of the labor-supply problem, war controls on manpower were relaxed or abandoned. Selective Service requirements were reduced to a minimum, and the labor priority referrals (established in 1944) and other controls of the War Manpower Commission on the movement of labor were discarded soon after the end of the Pacific war.

MINES, U.S. Bureau of, (Department of the Interior). During the first year following the end of World War II, the Bureau of Mines readjusted its activities to a peacetime mineral economy, using many new wartime technologic advancements, exploring for new mineral reserves, developing metallurgical processes, continuing extensive research in coal, petroleum and other commodities, promoting safety in mines, and providing many other services valuable to Government and industry.

In the search for new reserves of scarce materials depleted by the war, seventy-five exploratory projects were conducted and more than two hundred mineral deposits in thirty States and Alaska were examined. High-cost processes and techniques for beneficiating low-grade domestic ore reserves were carefully studied to fit in with a postwar economy. The Bureau developed new types of mining and drilling equipment, processes for producing ductile titanium and zirconium, and new ways of making sponge iron.

Through its geophysical work, the Bureau supplied Army engineers with information needed for constructing the Alcan military highway, explored the continental shelf between Alaska and the United States for petroleum resources, and tested Navy-developed magnetic surveys from an airplane. It also gave advice on fuel-burning equipment, boiler corrosion, adaptation of foreign equipment to American mining methods, and safe storage of subbituminous coal. The Bureau investigated ways to increase the known petroleum reserves through more efficient recovery methods and the use of helium as a tracer.

Under its health and safety programs, the Bureau expanded its accident-prevention work, gave first-aid instructions, and continued the examination of mine equipment. It offered technical assistance for the prevention of explosions, roof-fall accidents, and the elimination of health hazards in mining and allied industries. The Bureau also supplied much economic and statistical information on minerals to industry and the public.

Mineral Development. In the search for new reserves of iron and related ores, Bureau engineers investigated iron, tungsten, manganese, nickel, and fluorspar deposits in seventeen states and in Alaska. By diamond drilling, trenching or tunneling, minable iron ore reserves were found in Alabama, Montana, and Washington; and tungsten in Nevada. Magnetic surveys were also conducted in North Carolina, Tennessee, and in Utah. In the latter state an estimated 375,000,000 tons of iron-ore reserves were indicated in Iron County—enough to supply the West Coast steel industries.

New ways to produce high-purity metals and to use those already developed were carefully studied by Bureau metallurgists Electrolytic manganese from the Bureau's pilot plant at Boulder City, Nevada, was distributed to the steel industry for cooperative investigations which resulted in the production of steels as good as those made with ferromanganese. Bureau-produced high-purity ferroalloy metals were much in demand for experimental work in developing high-temperature alloys, used in gas turbines and jet propulsion engines. Bureau methods of manufacturing electrolytic chromium, electrolytic cobalt, ductile titanium and zirconium, expected to have many commercial uses, were released for the first time to the public.

In searching for reserves of non-ferrous minerals, the Bureau examined twenty-eight zinc and lead deposits, and five copper deposits, in fifteen States and in Alaska. Important lead and zinc reserves were discovered in Colorado, Idaho, Kansas, Oklahoma, Washington, and Wisconsin; and promising copper reserves were found in Arizona, Nevada, and Alaska. Every effort was made to reestablish depleted reserves of well-known regions. Considerable work was also accomplished in increasing gold and silver production.

In the field of nonmetallic minerals, seven deposits of mica, feldspar, asbestos, corundum or sillimanite were examined in five states and in Alaska, and sixty additional deposits were studied in various states. Bureau developments included a process to use perlite, a siliceous lava containing magnetic water, expected to be valuable to the building trades; a process to eliminate subgrade minerals from fluorspar; and a process to separate feldspar from quartz and mica. The Bureau also played a small part in the perfection of the atomic bomb at Oak Ridge, Tennessee.

Very little exploratory work was conducted in the field of light metals during the last year, due to a decline in the demand for aluminum and magnesium. Some work was done on the concentration of low-grade bauxites at the pilot mill at Bauxite, Arkansas, and the production of alumina from domestic sources. Two important reports, describing processes to salvage aluminum and magnesium from waste materials, were made public. To insure the Nation's magnesium supply, considerable progress was made in extracting magnesia from the mineral olivine, found in North Carolina and the Pacific Northwest.

Proving extremely valuable in wartime, geophysical surveys were used in discovering new deposits of critical war minerals, such as copper, zinc, manganese, iron ores and magnetites, lead and fluorspar; in locating added oil reserves; and in exploring the continental shelf bordering the United States and Alaska. Survey results of the Alaskan shelf, an area of about 750,000 square miles, indicated important reserves of oil, gas, and mineral deposits. With a plan for underwater exploratory work prepared by the Bureau, preliminary studies likewise disclosed large oil reserves in the continental shelf along the Gulf of Mexico, the Arctic Coast, and the Western Coast of the United States. Geophysical surveys were also supplied to war emergency projects pertaining to the construction of air fields, buildings and roads in Alaska.

Research in Coal. Considerable research was conducted by the Bureau to develop substitutes for dwindling high-grade coal reserves, and to use wartime processes in the production of different types of fuel. Bureau scientists found that subbituminous coal could be used in beneficiating iron ores, producing commercial hydrogen, and manu-

facturing synthetic liquid fuels and various chemicals. Bureau technicians examined new types of machines for use in anthracite mines, light equipment for use in strip mining bituminous coal, and a European coal planer. The Bureau proved that lignite in Washington State could be mined inexpensively by strip-mining methods. Seven exploratory projects resulted in the examination of more than 1,800 feet of drill cores from coal beds, and detailed tests were given to nearly 1,000 feet of coal.

In preparing and storing coal, hitherto unmined Washington strip coal proved marketable by washing, recoverable montan wax was discovered in Arkansas and California lignite, and a four-year Bureau study utilizing 30,000 tons of coal resulted in a process of storing subbituminous coal without danger of spontaneous heating or much loss in heating value. In studying coal combustion, the Bureau developed a procedure for evaluating various protective boiler tube coatings, investigated heat absorption in large central-station boiler furnaces, and tested coal-ash slag. The Bureau intensified its survey of carbonizing properties of American and some foreign coal and examined coals from Colorado and West Virginia for possible use in the manufacture of metallurgical coke.

Gas- and Dust-Explosion Research. Continuing its work in a relatively new field to help eliminate industrial explosion accidents, the Bureau investigated the limits of inflammability of various dust and vapors, minimum ignition temperatures and minimum spark energies for ignition, and related subjects.

Synthetic Liquid Fuels. The four major demonstration plants and laboratories in the Bureau's program to produce gasoline and oil from coal and oil shale were under construction as the work under the Synthetic Liquid Fuels Act (Public Law 290) went into the third year. Laboratory work was being done at Bruceton, Pennsylvania, Morgantown, West Virginia, and Laramie, Wyoming, with an oil shale demonstration plant rising at Rifle, Colorado. A wartime ammonia plant at Louisiana, Missouri, was being converted into a coal demonstration plant.

Petroleum and Natural Gas. Bureau experts studied ways to increase the primary recovery of oil through more efficient use of the natural energy in the deposits, to stimulate the recovery of oil from old fields by improved methods and increased operating efficiency, and to increase the use of marginal oils. The last of a group of engineering projects for the Petroleum Administration for War was completed on two important gas-condensate fields in Texas, and engineering surveys were started on three new fields. A method of increasing recovery and reducing operating costs by flowing small stripper wells instead of pumping them was studied in the Appalachian region. Reports on stimulative methods of oil production in Illinois and Indiana were published. Encouraging results were obtained in extracting oil from the Edna deposit of San Luis Obispo County, California, and crude oils from thirty of the Nation's largest fields were examined for possible jet-propulsion-fuel use. Three pure sulfur compounds, pentanethiol, thiophene, and ethyl sulfide, were prepared and will soon be made available to the petroleum industry through the Bureau of Standards. Research was also intensified in superfractionation, desulfurization, hydrocarbon analysis, and engine testing of fuels.

Helium. Helium, a lightweight, nonflammable gas, valuable to war, industry, and medicine, was produced in great quantities during World War II. With the conclusion of the Pacific war, production figures were released for the first time, disclosing that 434,190,000 cubic feet of helium were produced in the six years prior to June 30, 1946. More than half of the 63,403,345 cubic feet produced in 1946 was stored underground at Cliffside, Texas, as a conservation measure; and that same year a new record was attained in the sale of 4,249,125 cubic feet for industrial, scientific, and medical purposes. The Bureau also demonstrated the value of helium as a tracer gas to chart underground formations.

Explosives Research. In studying safer methods of using explosives, the Bureau made over 3,200 tests on new permissible explosives and added 2 new explosives to the permissible list, which now includes one hundred eighty. The Bureau tested the effects of sheathed explosives on toxic gases, the hazards of liquid-oxygen explosives, the ignition of firedamp by explosives, the use of hydrogen peroxide as an oxidizing agent in explosives, and conducted many special studies in cooperation with the Army and Navy.

Safety and Health Activities. In the field of safety and health, the Bureau continued to aid the minerals industry through educational and investigative work. The Bureau trained more than 19,000 people in first-aid and mine-rescue work, bringing the number of people trained in these activities since the establishment of the Bureau in 1910 to 1,625,000. Approximately 2,000 workers and officials were trained in accident-prevention work with special emphasis given to roof-fall accidents, responsible for more than half of the fatal injuries in all mining operations. Bureau statistics show that fewer accidents of this type are occurring in coal mines each year. Experienced Bureau safety workers also participated in dangerous rescue operations at three major disasters, investigated fifty other explosions and mine fires, and seventy miscellaneous accidents. The Bureau likewise approved thirty-one units of electrical equipment designed for safe operation in gassy mines, and tested the explosibility of various dusts, safer methods of underground communications, and ways to prevent further inundation and subsidence in anthracite mines, by using practical pumping facilities and back-filling methods. In the four-and-one-half years that Bureau safety experts have been examining coal mines under the Federal Coal Mine Inspection Act, about 200,000 or 35 percent of the safety recommendations made by inspectors have been put into effect by mine operators. Employing a Bureau field force of 167 persons, 2,719 mines were inspected during the past year, of which 320 were initial inspections and 2,399 were reinspections. Of the Nation's 7,000 regular coal-producing mines, 3,260 have been inspected, representing 99 percent of the coal produced in 1945. As a result of increased safety in mining operations, the frequency rate of fatal and nonfatal injuries dropped from 75.90 in 1941 to an all-time low of 66.77 in 1945. Only three major coal-mine disasters, killing 51 men, occurred from July, 1945, to July, 1946. In the war years, 1942–1945, approximately 2,608,000,000 tons of coal were produced with a fatality rate of 2.04 deaths per million tons of coal. In contrast, 1,919,000,000 tons were produced in 1916–1918 with a fatality rate of 3.91 deaths per million tons of coal produced. Thus, based on the coal-mining fatality rate of the first World War, 4,720 fewer lives were lost in coal mines during World War II. In December, 1945, the Explosives Control Division was liquidated after a four-year period of administering the Federal Explosives Act.

Employing nearly 4,000 volunteer licensing agents, the Bureau inspected more than 40,000 explosives-storage magazines, and issued or reissued about 800,000 licenses in 48 States and Alaska, authorizing more than 300,000 persons or organizations to transact business in explosives. Only 56 licenses were revoked during the war. In the field of health research, the Bureau analyzed more than 16,000 gas and dust samples, tested the underground operation of Diesel mine locomotives, supplied information on respiratory protective devices, investigated the characteristics of several gas-indicating instruments, analyzed problems in mine air-conditioning, and studied unhygienic conditions in coal, metal, and nonmetal mines.

Economics and Mineral Industries. Although the end of the war permitted a reduction in the frequency and detail of monthly economic and statistical reports, the Bureau revised certain surveys in anticipation of reconversion demands for information on minerals needed for postwar industries. Much information was also supplied to Congress and various Government agencies. The Bureau compiled and distributed reports on commercially important metal and nonmetallic minerals; prepared and released publications supplying domestic and foreign statistics on petroleum and natural gas; made public detailed information on bituminous coal, anthracite, lignite, other solid fuels and by-products; declassified and published much data on foreign minerals; and disseminated considerable information on mine accidents and employment statistics.

Public Reports. As a result of demands from industry, Government, and the public for information on minerals, the Bureau released 541 publications last year. They included 96 printed publications, such as bulletins, technical papers, miners' circulars, data books, and Minerals Yearbook chapters; 197 mimeographed reports of investigations and information circulars; 205 papers and speeches for the technical press; and 43 miscellaneous manuscripts and brief periodic statistical reports for industry. Educational films, produced under Bureau supervision from private-industry funds, were distributed to schools and colleges, engineering and scientific societies, and business and civic groups. The films were exhibited on 92,934 occasions to audiences totaling 7,893,218 persons. Four new sound films were added to the Bureau's library, bringing the total number of reels in circulation to 10,925.

R. R. SAYERS.

MINT, Bureau of the. A Bureau of the U.S. Department of the Treasury which directs the coinage of money and supervises the activities of the three Mints (Philadelphia, Denver, and San Francisco), the two Assay Offices (New York and Seattle), the gold Bullion Depository at Fort Knox, Ky., and the silver Bullion Depository at West Point, New York. Director: Mrs. Nellie Tayloe Ross.

MONACO. A Mediterranean principality surrounded on its land sides by the French department of Alpes-Maritimes. Area, 370 acres; population (1939), 23,973. Chief towns: Monaco (capital), La Condamine, Monte Carlo. During peacetime the main sources of revenue were the tourist traffic and the gambling concession at Monte Carlo. Budget (1939): 38,892,921 francs (franc averaged $0.0251 for 1939). A ministry assisted by a Council of State administers the country under the authority of the Prince. Legislative power rests with the Prince and the national council of 12 members elected by universal suffrage for a four-year term. Ruler: Prince Louis II (succeeded June 26, 1922).

MONGOLIA. An extensive, vaguely defined territory of about 1,875,000 square miles, bounded on the north by Siberia, on the south by Sin-kiang, on the east by Tarbagatai mountains and on the west by the Altai mountains. Population is about 840,000, of which 50,000 are Chinese, 100,000 Russians, and the remainder Mongolians.

Events, 1946. The Mongolian People's Republic formally submitted application late in June for membership in the United Nations. In a telegram from Ulan Bator, capital of the Mongolian Republic, Marshal Choy Bol-san, Prime Minister and Minister of Foreign Affairs, pledged his country's support to the principles of the United Nations as set forth in the Charter. Marshal Choy drew the attention of the Security Council and the General Assembly "to the fact that the people of the Mongolian People's Republic took part in the struggle against the Fascist States on the side of the United Nations, having contributed to the struggle by the material resources it has placed at the disposal of its great neighbor, the Soviet Union."

Consideration of Mongolia's application for United Nations membership was postponed after China recommended that the consideration be suspended until the world learned more of Mongolia's current history. The delegate of the Soviet Union upheld Mongolia's application and stressed her aid to the Allied cause. After the declaration of war on Japan on August 10, 1945, the Russian delegate said, Mongolia put 80,000 troops into the war, lost 2,000 and suffered material losses of $50,000,000.

On August 7 the texts of two treaties, signed in February, 1945, between the Mongolian People's Republic and the Soviet Union, were made public. One was a mutual assistance pact which linked the military power and defenses and the other was an agreement consolidating the economics, cultures, and educational systems of the two countries. In answer to a United Nations inquiry on the foreign relations of the Republic, the Mongolia report said that close relations, "based on recognition of equal rights" had been established with the Soviet Union and that on February 15, 1946 a protocol was signed between the Republic and China with the object of establishing diplomatic relations

In September, the five-man Mongolian delegation, headed by Deputy Prime Minister Jumzha Tsedenbal, left the United Nations and returned to Ulan Bator.

MOTION PICTURES. The motion picture as the art of the people, around the world, emerged in 1946 in a new position of international importance. It was a status evolved in the crucible of war. It was the fiftieth year of the screen, the twentieth year of the sound and talking picture. For decades the motion picture was in evolution in service of the masses at levels below the threshold of important consideration, except by the common man. Now it has become an urgent concern of governments, a subject of poignant consideration by statesmen.

The motion picture entered 1947 involved in the whole vast complex of social, political, and economic issues of the day. It had arrived at this out of wartime demonstration of its command and penetration of audiences, its utility alike in education, military training and propaganda, along with a new recognition of its direct and indirect functions in commerce.

Every nation had a motion picture policy and program. Also the United Nations was formulating a world wide program of message. The pictures were simultaneously employed for causes of war and for causes of peace.

The onetime catch penny-film of the peep-shows and arcades, growing up with the masses, had become a stuff of empire, taking a place in history with salt, amber, furs, spices, gold, iron and petroleum—and uranium.

This development had come integrally with the strengthened, and now recognized, appeal of the medium to the whole people. This was the while conspicuously demonstrated at the universal polling place, the theater box office. Indicative figures, significant both in the United States as the film's homeland and abroad by reason of the international business involved, are available in the year-end report on the Big Five among American motion picture corporations, all engaged in production, distribution and exhibition, with outlets around the globe.

The accompanying comparisons of net incomes rely on closely estimated figures for 1946, and may be taken as indicative of like ratios for most of the scores of lesser organizations, here and abroad.

Organization	*1945*	*1946*
Loews, Inc	$12,913,000	$ 17,000,000
Paramount	15,425,000	45,000,000
RKO	6,031,000	14,000,000
20th Century-Fox	12,746,000	22,000,000
Warner Brothers	9,901,000	19,000,000
	$57,016,000	$117,000,000

The total for the Big Five for 1946 was $59,984,000 greater than for 1945, an increase of approximately 105.2 percent.

The largest single contribution to the totals was inevitably from the American market and its prospering box office, supported by a vast working population laden with buying power by wartime payrolls. The motion picture box office curve inevitably follows the payroll curve. Entertainment is bought, not out of savings, but loose money jingling in the pocket.

The most intensively developed field of motion picture exploitation was still the United States with about ten million theater seats, and a rapidly expanding use of the films in the loosely named "non-theatrical" field, served increasingly by the substandard film, preponderantly 16-mm., spread over the world in remote places.

A survey of the world market for motion pictures completed late in the year, after considerable rehabilitation in war-swept areas, found a total of nearly 76,000 theaters in operation around the world, distributed thus:

United States	16,500	Cuba	375
Soviet Russia	16,000	Rumania	350
Great Britain	5,100	Switzerland	350
France	4,392	North Africa	347
Germany	4,000	Venezuela	329
Sweden	2,442	Colombia	300
Italy	2,000	Portugal	288
India	1,957	China	275
Czechoslovakia	1,893	Eire	274
Spain	1,600	Finland	250
Japan	1,500	Norway	250
Australia	1,400	Greece	250
Brazil	1,400	Philippines	250
Argentina	1,343	Chile	250
Canada	1,286	Peru	210
Mexico	1,119	Bulgaria	185
Belgium	1,103	Netherlands Indies	160
New Zealand	551	Puerto Rico	147
Austria	500	Uruguay	140
Poland	500	Turkey	130
South Africa	465	Egypt	125
Netherlands	450	Siam	100
Yugoslavia	450	Malaya	100
Denmark	430	Indochina	100
Hungary	400	Smaller countries	1,030

There in total was the exhibition machine, the address to the world's audiences. Divergent and pitted forces of political and economic import were engaged in advances and approaches of sorts. The Union of Soviet Socialist Republics maintained its "iron curtain" at home against most foreign film, especially American film, which might convey intimations of a more luxurious life for the common man in the democracies. Sympathetically, the lands under direct military or ideological influence by the U.S.S.R. pursued the same course in varying degrees of intensity.

Great Britain was the while engaged in a valiant movement to create a great world industry of the motion picture centered in London. The American industry, which had so long enjoyed dominance of the world screen, was active in defense of the *status quo ante,* and engaging in a variety of movements to meet the British drive around the world.

War Made Opportunity. For an understanding of the manifestations of 1946–47, it is necessary to retrace the facts for a distance. When in 1914 the blight of the first World War fell on lands overseas the motion picture was just arriving at the beginning of its modern era, the period of the "feature picture," the full length drama. The war shut down the studios of England, France, Italy, Germany, and the U.S.S.R., and left the development of the art and the industry to the United States, where a war-rich populace gave new and extraordinary patronage to the new entertainment. The American motion picture took over the world market, which was marginal to the greatest home market any amusement art had ever experienced. Hollywood, the production capital became the production capital of the world, and through the years that followed exercised its buying power to acquire all the proved or budding talent in the world wherever it appeared, and after assimilating, sold it back to the world.

In the years between, which we now know for a truce, the policy continued. America dominated the screen, probably to the extent of 80 to 90 percent. The principal obstacles which arose were in the totalitarian countries, conspicuously the U.S.S.R., Italy, and Japan, where rising walls of nationalism were set against the American pictures and indigenous picture industries were established as arms of government.

In the long history of empire it had long been said that "trade follows the flag" but it became increasingly apparent that trade was in fact following the films. Commercial interests overseas, and markedly in Great Britain, grew aware that the world-wide distribution of the American motion picture was proving an uncommissioned but effective sales agent for American manufactures.

Great Britain sought a degree of control over American domination of its screens by imposing quotas requiring exhibition of a certain percentage of indigenous pictures. The quotas were however indifferently enforced and variously evaded by the showmen. The British industry waxed and waned, in successive waves.

Great Britain. But by 1946 the British film and its challenge to American supremacy of the screen, both in Great Britain and in lands around the world had become the conspicuous new fact of motion picture development. Most decidedly the movement was led and personified by Joseph Arthur Rank, previously known as a flour-milling magnate, and very much the industrialist, on the directorates of nearly two score large and varied commercial enterprises, and the first new figure of such stature and promise to arrive on the motion picture scene in many years.

Mr. Rank went into the cinema incidental to his interest in religious and social causes and the films produced for them. He and his story are but little known. His grandfather ran a little windmill for grinding flour at the village of Nafferton in the East Riding of Yorkshire, thereby founding one of the great fortunes of today's England.

The year of 1946 found Mr. Rank in ownership or control of a preponderance of British studios and talent, dominant too in British exhibition, in equipment production, taking in, too, exhibition and production interests in the United States, with other picture ramifications in the capitols of Europe, Australia, New Zealand, Africa, India, and the Orient.

There had been distribution arrangements with a number of American concerns, but near the end of 1946 there came announcement of a capstone arrangement for America in a realignment of assorted Rank undertakings in the United States in coalition with Universal Pictures Corporation—in which Mr. Rank had already a large interest—from which emerged the flamboyantly announced Universal-International This was signalized by the presentation of the ambitious picture entitled, for America, *Stairway to Heaven.* It had been previously presented in Britain as *A Matter of Life and Death.* It there enjoyed the extraordinary and unique attention for a motion picture, of a royal command performance, significantly timed.

United States Counter Moves. In this same period of international development, Eric Johnston, President of the Motion Picture Association, the American film trade association, went to London looking to the betterment of trade relations there and in Europe.

An awareness of the new order on the cinema scene appeared in the year's activities of the State Department in Washington, with consideration of film relations along with negotiations for loans as for instance to Britain and France. Examinations of and report upon the film situations around the world became a function of American embassies everywhere.

The State Department, and other arms of government, were interested in tentative programs for special pictures to be made for selling the American way abroad

Consideration of a control over films for export was taken up by the House sub-committee on foreign trade of the Special Committee on Postwar Economic Policy and Planning in Washington in late December. Chairman Eugene Worley, of Texas, gave voice to a repetition of an oft-made charge that our motion pictures tended to portray the United States as "a nation of morons and gangsters," and that our people are mostly engaged in "either crime or frivolity." Representatives of the industry listened gravely and gave soft answers. No regulative action was indicated.

In mid-year the United Nations' film division was put into process of organization under the direction of Jean Benoit-Levy, a leader in the production of documentary films in France, recently resident in the United States. The United Nations' film programs and objectives were yet to be revealed.

Sub-Standard Theaters. The extension of the 16-mm. film field into areas of entertainment gained impetus through the year, considerably as a sequel to war experience The portability, safety, and relative simplicity of the 16-mm. mechanisms made them important as in the presentation of training films, and again for combat recording on land, at sea, and in the air. Then as armies went overseas, 16-mm. prints of entertainment product were supplied to army theaters, clear up to front lines and the capacity of the little pictures to entertain large audiences was effectively demonstrated. Meanwhile itinerant 16-mm shows were serving audiences in the American hinterlands, often drawing the vigorous protests of exhibitors of the standard 35-mm. theater.

The little 16-mm. picture on non-inflammable films, free from fire-law restrictions controlling the big theaters, and for the while at least without special pressures from the projectionists unions, enjoyed many special advantages.

With the revelation of new markets both at home and in foreign lands, all American companies developed interest and most of them by 1946 had 16-mm. arrangements of sorts. Loew's, Inc., powerful major concern, announced a program for 16-mm. entertainment projects for foreign fields, and in areas outside competition with the established standard film outlets. RKO made a 16-mm. exploration of South America and reported arrangements and theater projects, principally in the backlands, in Venezuela, Peru, Chile, Colombia, Cuba, Argentina, and Panama. A circuit of twenty theaters in remote Mindanao had equipment enroute at years' end.

Concurrently the Universal motion picture organization in New York announced a world-wide 16-mm. program and the formation of United World Films to handle it, acquiring the while the large Bell & Howell film library and absorbing the extensive Castle Films concern dealing with the non-theatrical 16-mm. trade.

The most historically notable event of the year was the twentieth anniversary of the coming of sound to the screen of the modern era with the presentation of Warner Brothers' *Don Juan* with John Barrymore, first shown on Broadway, August 6, 1926 This marked the acquisition of electronics by the screen, with the devices of sound recording and amplification from the telephone and radio, remaking the industry.

Pictures and Players. Each year's end brings surveys and evaluations of the product and the talent The predominant and continuing interest within the industry is in the people of the pictures The annual poll of the 16,500 picture exhibitors of the United States and Canada, by *Motion Picture Herald,* seeking their judgment of the ten best money-makers at the box office, resulted in the following sequence: (1) Bing Crosby, (2) Ingrid Bergman, (3) Van Johnson, (4) Gary Cooper, (5) Bob Hope, (6) Humphrey Bogart, (7) Greer Garson, (8) Margaret O'Brien, (9) Betty Grable, (10) Roy Rogers.

A parallel poll under the same auspices, among the box office showmen of Great Britain, resulted in the following appraisal, including both American and British players: (1) James Mason, (2) Bing Crosby, (3) Margaret Lockwood, (4) Greer Garson, (5) Bette Davis, (6) Stewart Granger, (7) Ingrid Bergman, (8) Alan Ladd, (9) Bob Hope, (10) Van Johnson.

Those are reports based upon the day-to-day ballot of the patrons who pay their admissions to see the pictures and people of their choice.

Laurence Olivier, star and director of *Henry V,* from the Shakespearian play, a Two Cities–J. Arthur Rank production made in Britain, was designated by the National Board of Review's two hundred reviewers as having given the year's best performance, at the same time deciding the picture the best of the year.

The vote of 559 motion picture critics of the

press and radio, annually polled by *The Film Daily*, designated as the ten best of the year, the following pictures:

1. *The Lost Weekend*—starring Ray Milland
2. *The Green Years*—Charles Coburn, Tom Drake, Beverly Tyler
3. *Anna and the King of Siam*—Rex Harrison and Irene Dunne
4. *The Bells of St Mary's*—Bing Crosby—Ingrid Bergman
5. *Spellbound*—Gregory Peck—Ingrid Bergman
6. *Saratoga Trunk*—Gary Cooper—Ingrid Bergman
7. *Henry V*—Laurence Olivier
8. *Notorious*—Cary Grant—Ingrid Bergman
9. *Leave Her to Heaven*—Gene Tierney and Cornel Wilde
10. *Night and Day*—Cary Grant—Alexis Smith

The year included, too, the fiftieth anniversary of the dawn of the motion picture screen in entertainment. The historically accepted date is April 23, 1896, with the showing of Thomas A. Edison pictures with the Vitascope, a projector invented by Thomas Armat of Washington, D.C., at Koster & Bial's Music Hall in Herald Square, New York. This was in sequel to the initial showing of kindred pictures in the Edison peep-show Kinetoscope in Broadway, beginning April 14, 1894, not to be confused with the theater screen. The screen's fiftieth anniversary passed without significant official attention from the industry in the United States but enjoyed more attention abroad.

Labor. A three-year-long labor turmoil continued in the production center of Hollywood, with an unending sequence of strikes. The issues were entirely jurisdictional, between two pitted groups of American Federation of Labor organizations, the Conference of Studio Unions, made up of left, radical, and liberal unions and leaderships, and the more conservative International Alliance of Theater and Stage Employees, which continued in peace with the producers. Wage demands of working technicians were variously met and adjusted, but there was no peace in prospect among the jurisdictional strikers.

The issues of jurisdiction were complicated by the continuing strategy of the subdivision of crafts into more and more unions. The process was exemplified in the costuming departments where the splitting reached the point where one newly constituted union was held to be exclusively devoted to the administration of girdles, while another dealt with brassieres.

At the close of 1946 there were forty-eight of these divisional unions involved in debates and controversies of jurisdiction. Production was continuing under difficulties, with picketing in process, spasmodically and at especially opportune occasions at various studios. Neither the national authorities of the AFL nor the employers were able to prevail and no end was in sight for the new year ahead.

Anti-Trust Case. After eight and a half years of tedious litigations, the Government's anti-trust suit against the eight principal concerns of the motion picture industry arrived at a decree, filed New Year's eve, finding the defendants guilty of violation of the Sherman Act and defining a program of trade practices to be applied.

This presumably ended the considerations of the court of first instance, but was declared unsatisfactory by both the Department of Justice and the defendants—also all of the collaterally concerned interests and those who had appeared as amici curiae. Appeal was certain and prospects of a final adjudication were exceedingly uncertain.

The suit entitled, *The United States of America versus Paramount Pictures, Inc.*, in equity No. 87–273, was filed July 20, 1938, when Thurman Arnold was in charge of the anti-trust division of the Department of Justice. There was a long interlude in which the defendants operated under a Consent Decree, which was in effect a tentative and experimental truce. The case went to trial a year and a half before the entry of judgment, December 31.

TERRY RAMSAYE.

MOTORBOATING. Power boat racing, which came to a dead stop during the last few years, roared back into the national sports picture in 1946.

Guy Lombardo, the band leader, captured several major events during the season. Making his debut as a big boat driver in the national sweepstakes at Red Bank, New Jersey, Lombardo piloted the Tempo VI to victory in three straight heats and less than a month later won the Gold Cup on the Detroit River. In sweeping all three 30-mile heats in that blue ribbon classic, Lombardo set three records for Gold Cup racing, lifting the 90-mile average to 68.072 miles per hour, the standard for a heat to 70.890 and the mark for one lap to 77.911. It was Tempo's third Gold Cup victory, having been the winning craft in 1939 and 1941 when owned by Zalmon Simmons Jr. and called My Sin.

Tempo, however, placed second to Miss Great Lakes in the President's Cup regatta late in September when the big, yellow boat driven by Dan Foster of Oakland, California, an ex-Army pilot, won all three heats. Sixty thousand spectators lined the banks of the Potomac to see Miss Great Lakes, owned by Albion Fallon of Detroit, break two regatta marks, boosting the heat time to 71.181 m.p.h. and the lap time to 71.565.

THOMAS V. HANEY.

MOTOR VEHICLES. Passenger-car production in 1946 totaled an estimated 3,779,682, or 57 percent of the 3,755,309 automobiles which motor-vehicle manufacturers produced in 1941. Major factors preventing attainment of the production goal of cars in 1946 were (1) strikes, (2) parts and material shortages, and (3) government controls.

With the greater portion of the physical reconversion of automotive plants swiftly accomplished within a few months after V-J Day, the industry anticipated that automobile production would reach a monthly rate of 300,000 units in January, 1946. By the following June, the industry hoped to increase the monthly output rate to 500,000—or an annual rate of production of 6,000,000 cars. Actually, however, only 142,000 automobiles were turned out in June.

Although one company had started its assembly lines as early as July, 1945 (under the partial reconversion program approved by the War Production Board after V-E Day), not until August, 1946, did the industry as a whole produce its millionth postwar automobile. Total net loss sustained by passenger-car makers during the first nine months of 1946 amounted to $5,500,000.

Truck manufacturers were hampered by the same obstacles as the passenger-car makers; however, the fact that civilian models were produced in varying quantities throughout the war, and the consequent comparative ease in reconverting to peacetime output, enabled them better to cope with shortages and production problems. As a result, despite their slow start in the first weeks of the year, truck companies produced an estimated total of 940,000 units in 1946. The previous peacetime peak of 1,060,941 (including 218,657 military) units was reached in 1941.

Throughout this first full peacetime year since 1941, actual production of automobiles lagged behind schedules which had been determined in the fall of 1945.

One company scheduled an output of 711,600 cars and trucks in the first half of the year; it was able to build only 287,258, or 40 percent of anticipated production. Another expected to turn out 654,950 in the same period; actual production totaled 196,971 or 30 percent of the scheduled output. A third company planned a combined six-month production of 115,500 motor vehicles but built only 42,700—or about 36 percent of the scheduled output. Other motor vehicle companies were able to produce from 14 percent to 81 percent of schedules in the first six months of 1946.

Work, Wages Lost. In the motor-vehicle manufacturers' plants alone, millions of man-hours of production were lost during 1946 as a result of strikes, shortages, and government controls. Total wages lost by employes of these companies in the period amounted to hundreds of millions of dollars.

Complete shutdown by strike of all plants of one producer which began November 21, 1945, continued until April 2. One effect of this strike was illustrated late in 1946 when the company announced that, up to November 15, it had produced only 884,413 units as compared with 2,057,506 in the corresponding period of 1941.

The experience of this company in efforts to maintain its schedules was typical of others in the industry. While the 113-day strike precluded attainment of schedules in the months immediately following the re-opening of its plants, the company was hampered throughout the year by continuing shortages of component parts, of steel, pig iron, lead, copper, tin, and zinc.

Parts Flow Disrupted. Strikes in supplier plants constantly disrupted the steady flow of parts prerequisite to the delicate timing of mass production. Statistics issued by one company revealed that, from early July to mid-October, between 52 and 72 strikes in supplier plants were interfering with production each week. As late as November 20, 1946, the same company reported that 30 strikes were in force in as many U.S. and Canadian supplier plants during the previous week.

Production schedules crumbled under the effects of an unbalanced flow of parts into assembly plants. One company was forced, after an earlier delay of 60 days, to suspend production for an additional month for lack of just one part—transmissions—held up by a strike in the plant of a supplier. At one point in July, another company had on hand enough bumpers for 2,300 trucks, but batteries for only 44, generators for 799, starters for 587, and fans for only 152. Lack of wheels threatened to halt truck assembly one mid-summer morning at a third plant. Only eleventh-hour delivery of a truckload of wheels kept production going.

While supplier strikes as a rule had immediate effects on motor vehicle production, the full impact of other shutdowns—particularly in basic industries—was not felt until months after they occurred.

The steel strike and the first coal strike of early 1946 caused the loss of 12,000,000 tons of steel. If automotive channels had received their normal percentage of this amount, it would have provided an additional 1,200,000 cars and trucks. In the closing weeks of the year, three automotive companies were forced to cut back production levels because of shortages of sheet steel. One reduced its daily output by 30 percent; the second trimmed schedules 10 percent, and the third—a major body producer—was forced to lay off 7,000 employes and cut production. The effects of the second coal strike in the closing month of 1946 will continue into 1947.

A prolonged strike in the electrical industry delayed the construction and installation of new rolling-mill equipment in steel plants to increase production of sheet steel needed for bodies and fenders. As a result, this shortage was expected to continue until mid-1947.

Restrictions Continued. The flow of materials used in automobile and truck manufacture was restricted throughout 1946 by price control, although most of the controls were abolished by Presidential action on November 10, 1946. Other government controls affecting the automotive industry continued after this date, however. Import or allocation rules remained on lead, tin, antimony, and natural rubber, while diversion reduced the availability of steel, pig iron, tin plate, terne plate, lumber, and plywood.

As of November 10, more than 30 Civilian Production Administration regulations, directly affecting the automotive industry, still remained in force. These controlled, in one way or another, cotton textiles and fabrics, tin, steel, pig iron, antimony, burlap, and other materials.

Lead, needed for batteries, bearings and solder, was in short supply throughout 1946. Although the restriction on imports of the metal was lifted November 18, controls were continued on its use.

Drastic Methods. The year was marked by unusual steps taken by various producers to continue operations. Expenditures which are normally prohibitive were shouldered to keep production going.

In one case, nuts and bolts were shipped by air from Buffalo to Flint. In another, regular air-freight service was established between Detroit and upstate New York to keep a steady flow of one part coming to assembly lines when other sources were hit by strikes or material shortages. When a shortage of burlap developed, a company bought up a million sandbags in far off India

A motor-truck adaptation of the old-time "pony express" was used over a 600-mile distance to prevent shutdown of an east-coast assembly plant when a supply of cushion springs was needed quickly. To keep production going in the face of a shortage of sheet steel, a company redesigned and re-engineered parts for automobile bodies without changing quality; shutdown was averted by stamping body-panels out of large pieces of stock used ordinarily for entire car roofs.

Another company paid a transportation premium of $15 a ton on pig iron shipped from Utah to its foundries in Michigan; cost of the pig iron itself was $26.50 a ton.

Payrolls Soar. Despite the lag in motor-vehicle production, employment and dollar payrolls throughout the U.S. automotive industry—assembly, parts and supplier plants—climbed to new peacetime highs in 1946. The payrolls reflected not only increased employment but higher base rates and abnormal overtime By September, employment of wage earners totaled 764,000 and payrolls averaged nearly $40,000,000 weekly. Employment and weekly payrolls in 1941 averaged 570,000 and $22,568,000, respectively; in 1937, 505,000 and $15,660,000; and in 1929, 471,000 and $15,171,000.

Indicative of the efforts of the industry to increase production was the rise in employment of salaried workers. Staffs were expanded to expedite delivery of new machinery, parts, and materials, and to find new sources of supply when regular

sources were unable to make shipments. One company alone employed in the closing weeks of 1946 about 18,000 more salaried personnel than in 1941. Another company's salary payrolls were double the 1941 figure.

A mid-year tabulation showed that 27 percent of the industry's employes were World War II veterans. This compared with the all-U.S. industry average of 18 percent.

Exports. Government controls restricted automobile and truck exports to 6 3 and 20.44 percent, respectively, of annual production. Actual exports came below even the small total allowed, however. Only one of 17 cars was shipped abroad in 1946; more than half of exports went to countries in the Western Hemisphere. In 1937, U.S. automobile exports totaled over 272,000, and in 1929 approximately 451,000 cars went to overseas markets.

Under normal conditions, ten in every 100 American automotive employes owe their jobs to the foreign demand for U.S. cars and trucks. The industry in 1946 was confronted with the problem of supplying domestic demand and at the same time maintaining overseas markets in the face of sharply increased competition from manufacturers in other countries. British producers in 1946 were required to export 50 percent of their total automobile output, and French motor manufacturers exported 70 percent of their automobile production.

According to a world survey of motor vehicle registrations issued in the latter months of 1946, the war severely depleted the number of vehicles in use in many foreign countries. Denmark lost 81 percent of its cars, trucks, and buses. Losses during the war period in some other countries ran almost as high. Registrations in the Netherlands declined 51 percent; Belgium, about 65 percent; Philippine Islands, 77 percent; China, 74 percent; Norway, 54 percent; Luxembourg, 72 percent; Greece, 41 percent, and France, 36 percent

Operating Losses. The year was characterized by substantial operating losses among motor-vehicle makers, offset to some degree by tax credits. The net loss of $5,500,000 reported by passenger-car producers for the first three-quarters, computed after tax credits, was equal to more than one-fifth of a cent on every dollar of sales recorded for the period. In contrast, passenger-car companies averaged a net return of 3 97 per sales dollar, after taxes, in 1945; 2.6 in 1944; 3 1 in 1943; 3.56 in 1942, 6.45 in 1941; 7.07 in 1940, and 8.25 in 1939.

Taxes. Special taxes—federal, state, and local—on ownership and use of motor vehicles climbed to a new peak of $2,300,000,000 in 1946. This total was $150,000,000 higher than in 1941 and came mainly from the wartime doubling of federal excises against highway users Enacted as temporary revenue measures in 1932, federal excises have increased steadily; of the 1946 total, federal excises alone amounted to $732,000,000.

The buyer of a $1,500 automobile in 1946 paid an average of $133.74 in special taxes in the purchasing and first-year operation of the car. All but $38.18 of this amount represented federal taxes.

Vehicle miles of travel in 1946 returned to prewar peak levels, with an estimated 27,000,000 automobiles and 5,400,000 trucks in use In 1941, 29,500,000 cars and 4,800,000 trucks were in operation. Thus, of the approximately 90,000,000 motor vehicles produced in the last 50 years (the Automotive Industry's Golden Jubilee was observed in 1946), over 32,000,000 were still in use.

The average motor vehicle on the road in 1946 was eight and one-half years old.

GEORGE W. MASON.

MUSIC. With the improvement of transportation, the international exchange of artists, traditionally so important in the field of music, took place more often during 1946, but still fell short of its prewar rate. Many celebrated musicians, notably composers, who had come to America when European conditions prognosticated war, remained and, from all indications, for good. Following Maggie Teyte, the British interpreter of French art-songs, who had been among the first of the veteran artists to resume international contacts (in 1945), Giuseppe De Luca, the famous baritone, returned to America, causing much less excitement than Miss Teyte. On the other hand, Pablo Casals refused invitations extended by both England and America for the reason that he did not approve of the recognition of Franco Spain by these two countries. The return of the pianists, Myra Hess and Guiomar Novaes, was warmly greeted by American concert-goers.

Georges Enesco, Rumanian composer, conductor, and violinist, came here late in 1946 for his first visit since 1939. Benjamin Britten, young English composer, who had been here just before the war, visited this country briefly during the summer to witness the American première of his opera, *Peter Grimes,* which was conducted by Leonard Bernstein at Tanglewood in Lenox, Massachusetts, as part of the Berkshire Music Festival. The winter season marked the first visits to this country, also, of Zoltan Kodaly, Hungarian composer, and Manuel Rosenthal, French composer, perhaps better known as conductor Rosenthal witnessed performances of his own works, and conducted performances of music by himself and other French composers.

Among those reciprocally representing the United States abroad were three young conductors, Leonard Bernstein, Bernard Herrmann, and Robert Lawrence. Arturo Toscanini conducted at La Scala during the summer, and Erich Leinsdorf, Vladimir Golschmann and others made conducting tours of the continent (see below). Samuel Barber, composer, went abroad to conduct some of his own music.

Creative Activity. The premières of Igor Stravinsky's *Symphony in Three Movements* and Aaron Copland's *Symphony No. 3* were distinct events in the creative sphere. Since his *Symphony in C* (1940), Stravinsky's orchestral music had been confined to such relatively light and serviceable works as a polka to accompany the dance of elephants at the circus, music for ballet in Billy Rose's *Seven Lively Arts,* and *Four Norwegian Moods,* a work of pleasant, short movements with some audience appeal. Copland, since his abstruse, highly significant and provocative *Short Symphony* (1933), had also become more and more involved, in his orchestral music, with works which, if not exactly programmatic, were conditioned by some ulterior subject matter—that is to say, they originally accompanied either movies or ballets, or presented impressions of his Mexican travels (*El Salon Mexico* and *Letter from Home*), or accompanied the speeches of a statesman (*Lincoln Portrait*). These symphonies thus marked the triumphant return of two of our foremost composers to the higher realities of abstract music. It is further significant that each was associated, at the inception of his symphony, with one of our major orchestras—the Copland symphony was commissioned by the Koussevitzky Foundation, virtually an auxiliary of the Boston Symphony, which premièred the work in its home city, October 18; while the Stravinsky Symphony was dedicated to the Philharmonic-Symphony of New York, which premièred it in its home city January 24. Both are vital

and outstanding achievements of our time, representing their creators at the peak of their activities.

Charles E. Ives, the veteran American composer who is slowly being recognized as a unique phenomenon in musical history, came in for some well-deserved recognition. Ives, who is now past seventy, has had to content himself most of his life with recognition by a small, faithful group of followers. At first this was restricted to his immediate friends. Earning his livelihood as a successful insurance man, he made no attempt to establish himself as a professional composer, and he had reproductions of his music made at his own expense to send to people who were interested in it. He continued to compose large symphonies and chamber works, undiscouraged by the fact that he almost never had occasion to hear them. Most important, he was already experimenting, early in this century, with the prophetic musical effects that later appeared as startling innovations in works of Hindemith, Schoenberg and others. His *Third Symphony*, which had idly rested for some forty years in a pile of music in a Connecticut barn belonging to Ives, finally was given its première, April 5 in New York, by the New York Little Symphony, with Lou Harrison as guest conductor. Shortly after this Ives was honored with a whole concert of his works, as part of the annual spring American Music Festival at Columbia University, when the symphony was repeated. Another performance was given later in a broadcast by the CBS Symphony under Bernard Herrmann's direction.

Virgil Thomson's untiring propagandism on behalf of French contemporary music in his columns in the New York *Herald-Tribune* was unquestionably rewarded with more and more results. Manuel Rosenthal was particularly fortunate, on his first visit here, in the number of his works heard under imposing auspices. The largest in scope was his choral work of about an hour's length, *St. Francis of Assisi*, premièred by the Philadelphia Orchestra under Eugene Ormandy. Many agreed on the expertness of his orchestration, but disagreement on the musical quality was sharp. Others of the less known composers, represented in this wave of French music, were Barraud and Sauguet.

Controversy over its *wunderkind* Dmitri Shostakovich once again arose in Soviet Russia. In the 'thirties his opera, *Lady Macbeth of Mzensk*, had been attacked for the bourgeois decadence of its ultra-modernism and shock elements. The *Ninth Symphony*, much shorter and lighter in vein than his previous mammoth and grandiosely expressive symphonies, was found to reflect so-called "unwholesome," retrogressive "neo-classicism" with which Stravinsky, arch-enemy of the official Soviet musical point of view, had become identified. Prokofieff's *Ode on the End of War* had its American première without much success. In the meantime, news arrived that Prokofieff was at work on a *Sixth Symphony in E-flat minor*.

Notable large choral works introduced during the first half of 1946 were: Paul Hindemith's *When Lilacs Last in the Dooryard Bloom'd*, a setting of the well-known Whitman poem; and the *Symphony: "The Airborne,"* by Marc Blitzstein, author-composer of *The Cradle Will Rock*, who dedicated his new choral work to the U.S. Army Eighth Air Force by which it had been commissioned. Blitzstein again wrote his own text, devoted to the history of human flight and its role in the last war. Part of it was spoken, with Orson Welles as narrator, at the première by the New York City Symphony under Leonard Bernstein. Notable, too, was the November revival of Stravinsky's monumental *Oedipus Rex*, again under Bernstein—the first New York hearing of this great choral work in fifteen years.

Modern music festivals, curtailed during the war, were, to a certain extent, revived. Summer witnessed the first Yaddo Festival of contemporary American music since 1940. The Berkshire Music Center, which had resumed its suspended educational activities, also resumed, under Koussevitzky's direction, its major role in the presentation of large new works, including Britten's *Peter Grimes* and Shostakovich's *Ninth Symphony*, which had their United States premières there.

The Austrian section of the International Society for Contemporary Music, suppressed during the war, was revived, planning several concerts in Vienna for the 1946–1947 season. The columns of the *New York Times* noted that there had been flourishing activity during the war in Czechoslovakia in the publishing of new and old music.

Samuel Barber's *Concerto for cello and orchestra* received the award of the New York Music Critics Circle as the best new native work to have a New York première during the season 1945–1946. A well-merited citation was given David Diamond's *Rounds for String Orchestra* as the best native work of a previous season to have a second New York hearing in the season 1945–1946. Guggenheim fellowships in composition were given to William Bergsma, Henry Brant, Alexei Haieff, Gian-Carlo Menotti, Harold Shapero, Louise Talma. Special postservice Guggenheim Fellowships were given to John Lessard and John Verrall. In addition to the Guggenheim fellowship, Shapero received the annual Gershwin Memorial Prize for the first movement of his *Serenade for Strings*.

Recitalists. The chief issue discussed and disputed among musical executants and recital-goers was the matter of Maryla Jonas, Polish pianist who made her New York début at Carnegie Hall, February 25. Escaping from the continent after considerable hardship as a result of the Nazi occupation, she had finally found refuge in Latin and South America where she came into contact with Artur Rubinstein. For her début she came, obscure and unheralded, to New York. But on the day after her concert, glowing praise in the press immediately established her as someone to be reckoned with. "The finest woman pianist since Teresa Carreno," declared Jerome D. Bohm in the *New York Herald-Tribune*. Others compared her to Moriz Rosenthal and Vladimir de Pachmann. The musical élite, who, having had no forewarning, were absent from this event, were duly skeptical of these encomiums, as were those critics who had been engaged elsewhere that night. A second appearance was arranged soon after, and, as was to be expected, those who dissented did so drastically. When Miss Jonas returned to the concert platform in the fall, and made a further début on Victor discs, even some some of her initial admirers cooled off. They still acknowledged her extraordinary dynamism and beautiful tone, but the impression seemed to be that she requires large, massive works to do her best. But as yet, she did not seem prepared with enough of these in her repertory to meet the demands of this sudden rise to fame. Musicians, however, looked forward with great interest to her future showings.

Despite the excitement over Miss Jonas, Vladimir Horowitz and Artur Rubinstein remained the top drawing-cards among piano recitalists. A single advertisement for two Carnegie Hall concerts by Horowitz in the *New York Times*, alone, was enough to sell them out within twenty-four hours.

Among violinists, Fritz Kreisler, who had celebrated his seventy-first birthday last February, was still going strong, last winter, and even made something of a come-back. While capacity audiences of hero-worshippers had continued to attend his previous recitals and other appearances, his intonation and vitality had been slipping considerably. But his Carnegie Hall recital in November found him in as good form as he had been for almost a decade.

Returning artists, such as De Luca, Hess, and Novaes, have already been mentioned in the introductory remarks, and others are mentioned in the section on opera.

Opera. Disagreements between the Metropolitan Opera Company and the American Guild of Musical Artists delayed the signing of contracts, and sale of subscriptions, and even threatened to prevent the 1946–47 season. The American Guild of Musical artists comprises the opera's soloists, choristers and ballet, and it was when Metropolitan officials attempted to make some changes in the chorus that the complications arose. Eventually the management was permitted to determine the number and qualifications of its artistic personnel. A new contract was made to supplant the outmoded one that had been in force for eleven years, and this, added to new contracts with other unions, resulted in considerable increase in costs for running a season.

Italian opera again figured prominently in the season of 1945–46 Thus, there were 58 Italian as against 29 Wagner (despite the absence of the Ring) and 19 French operas (including a revival of *Contes d'Hoffmann*). Certain factors were favorable to an emphasis on Puccini, namely the fiftieth anniversary of *Bohème* (duly celebrated in two consecutive NBC broadcasts by Toscanini, who had conducted its première February 1, 1896) and the end of the war, which meant that *Madama Butterfly* could definitely be restored to the repertory. Increased interest in Puccini was also reflected in the revival of *Tabarro* at the Metropolitan and *La Rondine* at the Juilliard School of Music—two short operas that have been neglected in our repertory.

The cause of opera in English achieved a few minor victories. On the one hand were the translations of traditional operas, and on the other, a few new English and American creative efforts. Mozart's *Seraglio* in English was among the novelties of the Metropolitan's season of 1946–47. Doubtless this was motivated by the success of *Magic Flute* which, in the years since its revival in English, has enjoyed more performances than it had when previously given in any foreign language. *Fidelio* had also been a success in English. Among operas specifically composed on an English text, *The Warrior* (music by Bernard Rogers and libretto by Norman Corwin) was announced for the 1946–47 season—the first American opera to be undertaken at the Metropolitan in several years.

In the general field of opera, conceived with English text, Benjamin Britten was the newest white hope. Thus the same year that saw the American première of *Peter Grimes* at Tanglewood, witnessed the English première of still another Britten opera, *The Rape of Lucrece*, which followed rapidly on the heels of its predecessor. In the meantime, Gian-Carlo Menotti, America's white hope of several years back in the operatic sphere, was heard from again after several years of obscurity. His chamber opera, *The Medium*, was given in the spring by Columbia University, which promised the première of Virgil Thomson's newest collaboration with Gertrude Stein for the spring of 1947. Encouragement for opera in English was forthcoming from the Royal Opera House in Covent Garden, which opened in February with plans to make a state theater out of it, and to sponsor English national opera.

The New York City Opera Company, under the direction of Laszlo Halasz, gave further justification for its existence by emancipating itself from dull emulation of the Metropolitan. Thus it realized at last that its role was, in the first place, to experiment with operas that were not firmly enough entrenched in the repertory to warrant risk on the part of larger companies, whose overhead is so much greater. The revival of Tchaikovsky's *Eugen Onegin*, last given at the Metropolitan in 1920, was in this class. Also, the smaller resources of the New York City Opera Company were suitable for chamber operas, which are somewhat outside the interests of the larger grand opera companies. Hence, the successful production of Richard Strauss's *Ariadne auf Naxos* which, strange to relate, had never been given in New York before.

Set Svanholm, a new Heldentenor at long last capable of sharing Melchior's duties, made a successful début in *Siegfried* in November. A rarity these days, was his svelte figure consistent with the appearance of a young Nordic hero. The French conductor, Louis Fourestier, made his United States début on the Metropolitan's opening night, conducting *Lakmé*, restored to the repertory for the first time since 1942. Shortly afterwards, Fritz Stiedry made his Metropolitan début, as conductor of *Siegfried*. Revivals in addition to those mentioned included Moussorgsky's *Boris Godounoff* (out of the repertory since 1943) and Humperdinck's *Hansel and Gretel* (out since 1939). *Faust Marriage of Figaro, Aida, Trovatore* and *Siegfried* were restored after a season's absence

Orchestras and Conductors. Wilhelm Furtwängler, the veteran German conductor, was the subject of international controversy when he was invited by the Mayor of Berlin to return and help direct its cultural revival. Accused of having been a Nazi "tool," he was barred from appearing on the podium of the Berlin Philharmonic by American officials in whose sector the orchestra was located. The Russian occupation authorities favored his return, and brought him into their area. The case was appealed, and though no hearing had been given it for several months, it seemed highly probable, after unofficial consideration, that it was only a question of formality before Furtwangler would be permitted to resume his duties.

The first postwar season of the Czech Philharmonic was also the occasion for an International Festival at Prague, in celebration of the fiftieth anniversary of the orchestra's founding. Conductors from various countries were invited to give representations of their respective native musical literature: Bernstein from the United States; Munch from France, Boult from England, and Mravinski from Russia. Another fiftieth anniversary was celebrated by the National Symphony of Washington, D.C., whose conductor, Hans Kindler, took the orchestra on a tour of South America, which also welcomed the ubiquitous Stokowski.

Dmitri Mitropoulos shared conductorial duties with Toscanini at La Scala, which had been rebuilt under the latter's solicitous guidance, after having been ravaged in 1943. Mention has been made above (in the introductory remarks on music) of other activities relative to international musical exchange.

Carlos Chavez brought credit to his Mexico Symphony by presenting an active summer festival

season of new music, inviting Stravinsky, Hindemith and Milhaud to appear as composer-conductors with the orchestra in rapid succession.

Special significance was attached to the appointment of George Szell to succeed Leinsdorf in the fall of 1947 as conductor of the Cleveland Orchestra. This orchestra has been, in the past, a sort of conductors' ante-chamber to the New York Philharmonic. Rumor had it that Szell was being primed for the assumption of the challenging New York post at a future date.

Activities of the smaller symphonies were notable. Bernstein's repertory with the New York City Symphony emphasized re-hearings of worthy contemporary works that had disappeared from the repertory after one or two hearings during past seasons. Smaller symphonies, such as the Buffalo, New Jersey, and Columbus, increased their budgets in order to get into the "big league."

A trend towards Strauss operas in concert form was observed on symphony programs: *Elektra* (Detroit Symphony); excerpts from *Der Rosenkavalier* (New York City Symphony); and the little known *Frau ohne Schatten* (Dallas Symphony), which, added to the New York City Opera Company's revival of *Ariadne auf Naxos,* indicated increased attention to the German composer.

Obituary. Paul Rosenfeld (died New York, July 20) was a sad loss to Avant garde American circles. He had been the first to defend many now accepted modern composers at a time when others had ignored them. A major figure in contemporary music passed away with Manuel de Falla (Argentine, November 14). The composer, Sir Granville Bantock died in London, October 16, and the virtuoso pianist, Moriz Rosenthal died in New York, September 4.

Ballet and Dance. Though several rival ballet companies operated at once in 1946, the results, in terms of artistry of performance and creativity, were below the level of what had been achieved in the previous year. Serge Denham's Ballet Russe, laboring against the odds of less financial backing and fewer stellar personalities, still was notable for the most consistent excellence, largely because of George Balanchine's unofficial connection with the company and the number of his ballets in its repertories. Once again, however, this company's attempts in the direction of American choreographic art were feeble. Ruth Page's *The Bells,* based on Poe's poem, with music by Darius Milhaud, had mainly the fine décor and costumes of Isamu Noguchi to recommend it.

The troupe of Lucia Chase and Oliver Smith, Ballet Theater, gave far more interesting spectacles than the forces under the more opulent aegis of Sol Hurok, with whom this company had formerly been connected. For his New York season at the Metropolitan Hurok was left with a hybrid group whose nucleus was the Original Ballet Russe of Colonel de Basil, which returned to this country after a long absence. Augmenting this, in Hurok's company, were the Markova-Dolin company, some remnants (though notable ones) of the short-lived Ballet International, and a few elements that had broken away from Ballet Theater. Lacking integration in terms of a common ideal, ballet at the Metropolitan, despite the advantages of that house for setting stage action in relief, was a rather loose affair. Among the brighter spots were two revivals from the repertory of the de Cuevas Ballet International: William Dollar's *Constantia* and, to a lesser degree, *Mute Wife* by Antonia Cobos. Dollar affirmed his position as a choreographer to be reckoned with, while Cobos gave indication of sensitivity and aptitude that might possibly be crystallized at a future date. The Ballet Russe novelty *Camille* was not a success, for the talents of John Taras, as indicated in his previous and first attempt, seemed less adaptable in their present stages to a story ballet than to an abstract work. North American premières of David Lichine's *Cain and Abel* and Vania Psota's *Yara* revealed little of consequence.

A good deal of interest centered on Ballet Theater's novelty, *Facsimile,* by Jerome Robbins, whose first attempt, *Fancy Free,* had created quite a sensation in 1944. In the interim he had written a short work, *Interplay,* for a Billy Rose revue on Broadway. But *Facsimile* was his second ballet made specifically for a ballet company, and it was his first effort with a serious subject. Once again, his dance inspirations showed that he is a big force among younger American creators, but his newest product was interlarded with rather naive attitudes and theatrical tricks connected with human insecurity and frustration, and the net result was somewhat empty. As in *Fancy Free,* Leonard Bernstein and Oliver Smith were collaborators on the musical and scenic ends, respectively.

To complete the record of Ballet Theater's activities, it should be mentioned that it started out its career under its new directors with a trip to England With Antony Tudor as its artistic director, and with most of this British choreographer's ballets in its repertory, the company naturally found ready acceptance there.

ARTHUR V. BERGER.

NARCOTIC DRUGS CONTROL. International control of traffic in narcotic drugs was reconstituted within the framework of the United Nations organization in 1946. The Commission of Narcotic Drugs of the UN held its first meeting at Lake Success, New York, on November 27, taking over the activities which had been carried out with considerable success by the Opium Advisory Committee of the League of Nations.

The new Commission, which is a part of the Economic and Social Council of the UN, presumably will also integrate its work with the other international control body, the semi-autonomous Permanent Central Opium Board.

Mr. H. J. Anslinger, United States Comissioner of Narcotics, is the United States representative on the Commission on Narcotic Drugs. He had as advisor during deliberations of the Commission, George A. Morlock of the Division of International Labor, Social and Health Affairs, the United States Department of State.

Announced intention of the Government of Iran to abolish opium production in that country constituted another important step toward the drying up of sources of illicit narcotics. Iran, together with Burma and India, has constituted a major source for such drugs for a number of years. The action of Iran followed the lead of Afghanistan taken in 1945, and the decisions of the Governments of the Netherlands, Great Britain, and France to eliminate opium distribution in certain of their territories in the Far East.

No positive steps toward elimination of the traffic in Burma or India have been taken.

United States and other allied military authorities during 1946 continued to impose strict controls over stocks of narcotic drugs discovered in liberated and enemy countries, to prevent the diversion of such stocks into illicit channels. After the First World War the breakdown of controls permitted huge stocks of drugs to fall into the

hands of international smugglers, which diversions contributed to a virtually world-wide wave of addiction.

In areas freed from Japanese control, United States military authorities under the direction of General Douglas MacArthur made large seizures of drugs and took positive steps to stamp out production and traffic in opium and its derivatives.

The United States Treasury Department cooperated closely with Allied occupation authorities in these efforts to corral surplus drug supplies in war torn areas.

National Control. Seizures of drugs in the United States internal traffic, and by Customs at ports and borders, declined moderately during the year ended June 30, 1946, as compared with the similar 1945 period. The total 1946 seizures were 8,661 ounces, against 10,285 ounces in 1945. A shift in the volume of shipping away from "infected areas," with an attendant drop in seizures at the ports was the major factor in this decline.

Mexico, together with the far eastern areas hitherto mentioned, remained a major source of illicit supplies reaching this country despite active efforts of the Mexican Government to stamp out the traffic.

Arrests for violation of narcotic laws increased in number while the volume of drugs seized declined, the total for 1946 being approximately 1800, compared with 1500 in 1945 Wholesale indictments against peddlers and middlemen were obtained in several states.

Marihuana arrests and seizures increased, with arrests totaling about 850, some 200 more than in 1945; and seizures aggregated 12,445 ounces against 12,325 ounces in 1945.

Extremely high prices continued to prevail for narcotic drugs in the illicit traffic, and the product eventually reaching addicts, in most cases, was highly adulterated.

Reflecting the scarcity from other sources, burglaries, robberies, and larcenies from pharmacies, wholesale houses, and other registered establishments were reported in substantial numbers. There were numerous cases of forgery of prescriptions and attempts to obtain drugs by misrepresentation.

Significant of the great strides made toward stamping out addiction to narcotic drugs in the United States is a report of military authorities to the effect that roughly about 1 man in 10,000 selective service registrants examined for military duty during the recent world struggle was rejected on this ground, compared with rejection of 1 man in 1500 in the much smaller army of World War I.

While it is too early to reach any conclusion on the longer range aspects, experience thus far indicates that there has not as yet appeared any rising trend in addiction such as has followed previous wars.

Addiction to and diversion of the synthetic, morphine-like drug, Demerol accounted for a number of cases developed by the Bureau of Narcotics during 1946.

H. J. ANSLINGER.

NARCOTICS, Bureau of. A Bureau of the U.S. Department of the Treasury, established in 1930.

NATIONAL ADVISORY COMMITTEE FOR AERONAUTICS. An independent Committee of the U.S. Government which coordinates and conducts aeronautical research. The principal research laboratories of the Government are the Langley Memorial Aeronautical Laboratory at Langley Field, Va., the Ames Aeronautical Laboratory at Moffett Field, Calif. and the Aircraft Engine Research Laboratory at Cleveland, Ohio. Chairman: Jerome C. Hunsaker.

NATIONAL ARCHIVES, The. An independent establishment of the U.S. Government, created in 1934, which accepts and preserves Government records. Archivist in 1946: Solon J. Buck.

NATIONAL BUREAU OF STANDARDS. Established by act of Congress, March 3, 1901, the National Bureau of Standards is the principal agency of the Federal Government for fundamental research in physics, chemistry, and engineering. During 1946 the Bureau consisted of eleven scientific and technical divisions and three concerned with commercial standardization. The scientific and technical divisions were: Electricity; Metrology (formerly Weights and Measures); Heat and Power; Optics; Chemistry; Mechanics and Sound; Organic and Fibrous Materials; Metallurgy; Mineral Products (formerly Clay and Silicate Products); Ordnance Development (including electronics); and Radio Propagation. The standardization divisions were: Simplified Practice; Trade Standards; and Codes and Specifications.

Dr. E. U. Condon, Director of the Bureau, served as scientific advisor to the Special Senate Committee on Atomic Energy, and was a member of the President's Evaluation Commission at the atomic bomb tests conducted by the army and navy at Bikini Atoll. Dr. H. L. Dryden, chief of the Mechanics and Sound Division, and Dr. E. C. Crittenden, former chief of the Electricity Division, were appointed Associate Directors.

The Bureau's direct appropriation for 1946 was $3,588,000, and this was supplemented by approximately $8,500,000 transferred by the army, navy, National Defense Research Committee, and other government agencies. The staff at the end of the year totaled a little over 2,300. In addition, 65 persons were engaged under the Research and Industrial Fellowship Plan.

As in past years, the Bureau was active in technical societies and trade associations concerned with the applications of scientific research and with standardization. Members of the Bureau's staff also served on committees, and as officers of such organizations as the Federal Specifications Board, the Joint Army-Navy Battery Advisory Committee, the International Committee on Weights and Measures, the International Electrotechnical Commission, the National Conference on Weights and Measures, and other technical groups.

Representative of the war research projects continued during 1946 were the development of special batteries, interior ballistics, lightning hazards to aircraft, optical range finders, chemical analysis of secret materials, jet propulsion combustion, solid fuel combustion in high-velocity air streams, aviation fuels, radar homing missiles for use against moving targets, proximity fuzes, aerodynamics of bombs and rockets, oxygen equipment for high altitude aircraft, the metallurgy of uranium, and leak-proofing methods for concrete gasoline tanks.

Two of the noteworthy contributions of the Bureau to the war effort, on which work continues, were the VT (proximity) fuze and the guided missile. The Bureau was responsible for the invention of the basic radio fuze and for the development and engineering of such fuzes for bombs, rockets, and mortar shells. In this program the Bureau served as the sole research and development agency for the National Defense Research Committee, and now performs the same function for the Army Ordnance Department. The Bureau also developed the guided

missile "Bat," the only fully guided automatic missile used successfully in combat, continuing this type of development in the "Kingfisher" project in 1946.

Work in nuclear physics continued during the year. Projects included the calorimetric measurements of secret materials, research in isotope separation, mass spectrometer measurement of isotope ratios, studies in neutron absorption, analysis of ores of uranium and other heavy elements, research in beta and gamma ray spectra of radioactive isotopes and in alpha ray emission of such isotopes, and the development of new methods of test. In addition, beta and alpha ray standards were developed in laboratory form. Related projects included the designing of a 100,000,000-volt betatron, tests of Geiger-Muller counters and associated electronic equipment, testing of over 3,000 radium samples, preparation of safety codes for x-ray and radium protection, and the construction and operation of 1,500,000-volt x-ray tube.

Prior to the war considerable work was done at the Bureau in radio propagation, which includes ionospheric research, propagation and measurement, microwave research and measurement, and frequency utilization service. During the war the ionospheric group at the Bureau became the centralizing unit in the United States for ionospheric data taken all over the world. This group was given division status on May 1, 1946, with the formation of the Central Radio Propagation Laboratory, Division XIV of the Bureau. Ionospheric data, received from 55 ionospheric stations scattered throughout the world, are gathered and analyzed and the results are disseminated to the armed services, commercial users, scientists, and laboratories.

Basic research on the fuel qualities of hydrocarbon components of petroleum was conducted to improve military aviation gasoline. Hydrocarbons of the types in petroleum were prepared in high purity, and their physical and engine properties were determined. Many new compounds, some having unusually compact structures, were prepared. A number of these compounds far surpass the fuel qualities of present military aviation gasoline and offer possibilities of improved fuels for the future.

In cooperation with the American Petroleum Institute, an additional 32 standard samples of hydrocarbons, bringing the total to 92, were prepared for calibrating spectrometers and other analytic instruments in the petroleum, rubber, chemical, and allied industries.

Improved procedures were devised for controlling the quality of the synthetic rubbers produced in the 15 government-owned plants. Means were worked out for better temperature control during the mixing and vulcanizing of test lots of rubber. Tensile testing was critically investigated and procedures devised for tracking down discrepancies between laboratories.

Progress was made in the methods used to produce various types of diamond tools with the aid of the electric arc. Experiments applying the high voltage arc to cutting on the different crystal faces of diamond improved the production of industrial tools and also the cutting of gems. Applied to the diamond saw, the arc makes cutting possible in directions where no progress could be made without its aid.

The Chemistry Division issued 325 different kinds of standard samples, for checking methods of chemical analyses in industrial and scientific laboratories and as standards for physical measurements. New samples include a tin-bearing steel, tungsten steel, two nickel-chromium-molybdenum steels, and four pH standards.

An electron tube laboratory was established during the year as a part of a newly formed Electronics Section, and a program of basic and applied research was undertaken. Projects initiated included the study of thermionic and secondary emission; the study of the electro-mechanical performance of electron tubes and the development, improvement, and intercomparison of test methods and equipment for evaluating standards of performance and quality of electron tubes.

A few other representative projects of the year included underground corrosion of metals, high voltage research, dental materials, thermal expansivity, lubricating greases, optical glass, porcelains and refractories, ceramic coatings for aircraft exhaust stacks, basic elements for electronic computing machines, electronic measurement instruments, optical crystals, sugar research, photometry of phosphorescent materials, extraction of alumina from clays, lateral contraction of some structural alloys, properties of sound wave fields, fundamental investigations of air flow, high polymer research, fatigue in metals, powder metallurgy, and building materials and structures.

The test work of the Bureau during the year totaled approximately 250,000 tests and calibrations (including the furnishing of standard samples) valued at $1,200,000. Representative activities of this nature included the calibration of approximately 77,000 thermometers of various kinds, over 60,000 hours of performance and life tests on engines, the testing of 200 refrigerators, preparation and distribution of 21,000 standard samples of chemicals, approximately 40,000 tests of some 6,000 chemical samples, calibration of about 900 water current meters, examination of 5,300,000 barrels of Portland cement for various government agencies, factory inspection of about 4,000,000 lamps purchased by the government and life-test of over 3,000 at the Bureau, almost 19,000 tests on miscellaneous materials (such as concrete and concrete aggregates, soils, paints, textiles, water, soaps, oils, and metals), and others.

A total of 145 research papers were published in the Bureau's series of publications; and 79 articles appeared in scientific and technical journals. Nine new mathematical tables were made available to the public, bringing the total to 75. The Bureau's publications are available in the leading libraries throughout the country. An indexed list of publications (Circular C24 and supplements) is obtainable from the Superintendent of Documents, Government Printing Office, Washington 25, D.C.

HUGH ODISHAW.

NATIONAL DEFENSE, Council of. A Council composed of the Secretaries of War, Navy, Interior, Agriculture, Commerce, and Labor, originally created by Act of Congress, Aug. 29, 1916. The Act authorized appointment of an Advisory Commission to the Council, composed of seven persons having specialized knowledge in certain fields. Such an Advisory Commission was appointed May 29, 1940, and constituted the beginning of the National Defense Program for World War II; its functions were subsequently absorbed by other agencies. The agencies evolved from the Advisory Commission, except for the Office for Agricultural War Relations and the Office of Price Administration, are now units of the Office of Emergency Management.

NATIONAL HOUSING AGENCY (NHA). The National Housing Agency was created by executive order

of the President on February 24, 1942, to centralize non-farm housing responsibilities formerly assigned to more than a dozen agencies. Policy decisions are made in the office of the Administrator and operations are carried out through three major constituent units: the Federal Home Loan Bank Administration, the Federal Housing Administration, and the Federal Public Housing Authority.

To launch a full-scale attack upon the veterans' housing emergency, the Office of the Housing Expediter was created by Executive Order 9686 on January 26, 1946. Under the Housing Expediter, who was also appointed Administrator of the National Housing Agency eleven days later, the Veterans Emergency Housing Program was launched on February 8. On December 31, 1946, the home construction record of the Veterans Emergency Housing Program was as shown in the accompanying table.

Total Units Begun in 1946	1,003,600
New Permanents	670,900
Conversions	64,500
New Trailers	48,000
Temporaries	191,000
Other Public Bodies and Schools	29,200
Total Units Completed in 1946	661,900
New Permanents	453,800
Conversions	45,300
New Trailers	48,000
Temporaries	101,900
Other Public Bodies and Schools	12,900

NHA was well-equipped, in organization and experience, to carry out the Veterans Emergency Housing Program. It had administered, from 1940–45, a war housing program in which more than 2,000,000 dwelling units were put under construction, all but about five percent being completed by V-J Day. More than 700,000 additional units were built outside the program, most of them before 1942, when Government housing regulations went into effect. Private investment supplied more than a million units of war housing with a private investment of nearly five billion dollars. This was enough to keep a core of our building industry active to meet imperative needs and in stand-by condition for the post-war job to come.

On October 15, 1945—two months after the war ended—WPB Order L-41, the war measure which restricted non-residential construction and limited residential building to quotas established by the National Housing Agency, was lifted, and sales price ceilings and priorities for materials were abolished. The result was a boom in non-residential construction, chiefly at the expense of home building. War-curtailed building materials producers and distributors were not yet ready to meet the tremendous demand. Many home builders found themselves unable to compete for scarce materials against commercial and industrial builders. Residential construction declined accordingly.

Meanwhile, the nation's long-standing housing shortage became a housing emergency. As of October 1, 1945, 1,200,000 families were living doubled up with other families. More men were leaving the armed forces in one month than the largest number of houses America had ever built in one year. Vacancy rates in most cities and towns had dropped to all time lows. It was estimated that something near three million new dwelling units would be needed by the end of 1947 just to keep the shortage from getting worse.

On December 31 of that year, Title V of the Lanham Act was amended to provide $191,900,000 to aid in providing re-use war housing to communities and educational institutions for veterans accommodations. (Another $253,727,000 was appropriated under the same act on April 9.)

With the plight of homebuilders steadily growing worse, the government began to restore controls over housing at the turn of the new year. The Civilian Production Administration issued Priority Regulation 33 on January 15, this established a priority system (to be known as "HH priorities") covering 11 critical materials applicable to the construction of veterans' housing costing $10,000 or less or renting for $80 or less a month per unit. Subsequent amendments raised the number of building materials under HH priority ratings to include almost every type of scarce material.

To coordinate these individual approaches to the housing emergency, and to overcome the veterans' emergency housing problem, the Office of the Housing Expediter was established.

The Housing Expediter was authorized to formulate plans and programs to provide for an increased supply of housing for veterans of World War II, coordinate the activities of other executive agencies to carry out such plans and programs, recommend needed legislation to the President, and consult and cooperate with other national and local agencies, organizations, and industries to solve the housing emergency. On February 7, the Housing Expediter submitted the Veterans Emergency Housing Program to the President, who approved it the following day.

The program set up a goal of 1,200,000 moderately-priced homes and apartments for veterans under construction by the end of 1946. It mapped out a campaign—stimulation of building materials production; limitation on the prices and rents to be charged for new houses, sales and rental preference for veterans, servicemen, and non-veteran hardship cases; cutting down of deferrable non-residential construction; priorities and allocations of scarce materials and equipment to home builders; channeling the bulk of building materials to moderately-priced housing, construction of some 200,000 temporary housing units with funds authorized by Congress; recruitment of 1,500,000 additional workers; organizing community action programs.

The first order issued under the new program was Veterans Emergency Housing Program Order 1, on March 26. It called for deferment of new, unessential, non-residential construction to ease the strain on the many critically short building materials and thus make more of them available for veterans' housing, restricted all new housing to that covered by priorities at $10,000 or less, and required authorization to start any major construction work.

To aid construction of both rental units and moderately-priced housing, a channeling order was issued on April 21, requiring 25 percent of all HH authorizations reserved for rental housing, and 50 percent of both rental and sales construction to be priced at or below local dividing lines. These dividing lines were based on the local current cost of producing a minimum acceptable two-bedroom house, as determined by FHA standards.

The Veterans Emergency Housing Act, passed by Congress on May 22, reaffirmed the powers granted the Housing Expediter by the President Its chief provisions: (1) authorized $400,000,000 for premium payments to stimulate production of critically-needed materials; (2) restored Title VI of the National Housing Act to operation by adding a billion dollars to the amount of home mortgage loans made by private lending institutions which the Federal Housing Administration may insure

under this Title, while permitting the Federal Housing Administration to insure mortgage loans up to 90 percent of the "necessary current cost" on the property involved, including land; (3) authorized the Housing Expediter to guarantee markets for prefabricated houses and new types of materials; and (4) provided $15,000,000 for the building of access roads to hitherto inaccessible government timber stands.

The first premium payment plan authorized under the Veterans Emergency Housing Act became effective June 1. It set up a system of incentive payments to manufacturers of structural clay products—one of the most critically short building materials; under it producers would be paid $5 for each 1,000 standard brick equivalents manufactured over established quotas. By November 1, eleven premium payment plans were in effect, covering the major critical building materials.

By mid-year it was apparent that authorized non-residential construction was draining an undue amount of critical building materials away from home building. At the request of the Housing Expediter, the Civilian Production Administration ordered its field offices on May 30 to reduce the dollar value of non-housing construction authorizations by two-thirds for at least the next 45 days to keep building in line with materials supply. Permitted non-housing construction was subsequently curtailed twice.

July, August, and September saw further amplification of the Veterans Emergency Housing Program.

The major action of August was the announcement of the "big push" to get more materials into veterans' housing, so that more homes could be completed before winter set in and more new home construction get under way. The "push" consisted of (1) setting-aside a much greater proportion of scarce building supplies for housing; (2) adding many critical building items to the list of materials under priority control, (3) obtaining stricter compliance by closer inspection of the sale of building materials, and (4) cutting the volume of non-housing construction sharply with a more rigorous review of the essentiality of such construction. "Set-asides" were increased to make it possible for priority holders to obtain needed building materials more rapidly. This was done not only by increasing the proportion of material which must be held by dealers for priority orders, but also by requiring the dealer to hold this material until a priority order was presented. Heretofore the dealer had been required to "set-aside" this material for only 21 to 30 days for priority orders, after which time he could sell to any purchaser.

Further actions were taken during October to speed up the flow of materials to veterans housing. More building materials were placed under priority ratings and more were ordered "set-aside." In addition guaranteed markets were signed with three firms producing prefabricated housing. A fourth was signed in November, with several others pending.

By December 31, a recapitulation of the results of actions taken by the Veterans Emergency Housing Program showed both a sharp increase in building materials and a rapid expansion of construction activity through the combined effort of builders, labor, and government.

The record showed not only 1,003,600 dwelling units started and 661,900 completed, but also dramatic increases in the production of building materials. Lumber production for 1946 was expected to be about 34,500 million board feet, an increase of 23 percent over 1945 and close to the high levels of 1941 and 1942. Preliminary figures showed brick output more than double that of 1945, and almost equal to 1941 production. Production of gypsum board and lath for the year set a new all-time record. Many of these production increases were due to such government aids as materials allocations, price adjustments (over 250 in 1946), priorities assistance for raw materials and equipment, and premium payment plans. Over 730 Mayors' Emergency Housing Committees had been organized to plan and direct all phases of the local attack on community housing problems.

Thus, by the completion of 1946, homebuilding had risen from the low wartime level to one of the highest levels in 20 years. Production of most building materials jumped to record or near-record levels and ranged from 50 to 100 percent higher than during the early months of 1946. Even the removal of price controls on building materials on November 4 was less serious than it would have been without such production in nearly every field of building materials.

On December 14, following the decontrol of prices in November, the Veterans Emergency Housing Program underwent considerable revision The Office of the Housing Expediter and that of the Administrator of the NHA were separated. Several restrictions were lifted: the priority system was replaced by a simple permit system; the $10,000 sales ceiling on new homes was replaced by a limit of 1,500 square feet of floor area per house, and non-veterans as well as veterans were permitted to build for their own occupancy. The limitation on non-residential construction was modified, and the ceiling of $80 for rental of new multiple-unit projects was changed to an average monthly rental of $80. The Federal Housing Administration was granted another billion dollars of insurance authorization to be used primarily for rental housing. The guaranteed market plan, allocations of raw materials for housing items, export controls, and apprentice training and technical research programs were to be continued. In announcing the new program, the President stated that the main point of emphasis in 1947 would be rental housing.

Federal Home Loan Bank Administration (FHLBA). The Federal Home Loan Bank Administration directs the operations of the Federal Home Loan Bank System and the Federal Savings and Loan Insurance Corporation; two permanent agencies established to encourage home ownership and economical home financing and to protect savings The Administration supervises Federal savings and loan associations. FHLBA also directs the Home Owners' Loan Corporation, an emergency agency founded during the depression to aid distressed home owners who faced foreclosure. HOLC is now in liquidation.

Federal Home Loan Bank System. Established in 1932, the Federal Home Loan Bank System provides a nation-wide home-mortgage credit reserve for thrift and home-financing institutions somewhat comparable to the Federal Reserve System in the field of commercial banking. Eleven regional Federal Home Loan Banks serve member home-financing institutions in their respective areas by making short-term and long-term loans to them. Through the regional Banks, funds may be shifted from areas of abundant credit to areas of scarcity. Since their establishment, they have advanced $1,872,000,000 to their member institutions, of which $234,762,000 was outstanding on Sept. 30, 1946.

Of the 3,702 member institutions of the System, 3,665 are savings and loan associations, cooperative banks and homestead associations. Of the remaining member institutions, 25 are mutual savings banks and 12 are insurance companies. Assets of members amount to more than $9,696,000,000. The System is self-supporting.

Federal Savings and Loan Associations. Under a law enacted in 1933, the Federal Home Loan Bank Administration is authorized to charter and supervise Federal savings and loan associations, which are private mutual savings and home financing institutions. Charters may be granted to newly-organized institutions or those converting from state charter. On September 30, 1946, there were 1,474 such associations in operation with combined assets of $4,470,000,000. Federal associations are required to be member institutions of the Federal Home Loan Bank System and must be insured through the Federal Savings and Loan Insurance Corporation.

Federal Savings and Loan Insurance Corporation. In 1934 Congress provided an insurance program for investors in savings and loan associations and similar home-financing institutions by creating the Federal Savings and Loan Insurance Corporation. Insurance is optional for state-chartered associations. Public confidence, inspired by the fact that investments are so safeguarded, has encouraged the flow of funds into insured associations. About 4,751,000 investors in 2,497 savings and loan associations, with combined assets of more than $7,012,000,000 are now protected by insurance up to $5,000 each. The FSLIC is self-supporting.

Home Owners' Loan Corporation. During the three years after its creation in 1933, the HOLC refinanced delinquent mortgages on more than a million homes by providing low-interest long-term loans, which since then have enabled most of the owners to retain their homes. In these rescue operations, $3,093,000,000 was loaned, an amount later increased to nearly $3,500,000,000 through advances to borrowers and other costs

Up to October 31, 1946, about 81 percent of this investment had been liquidated by collections on the loans and the sale of properties securing its mortgages which HOLC was obliged to foreclose. A balance of $666,000,000 was outstanding on that date.

Since 1936 the primary functions of the Corporation have been to collect payments due and liquidate its assets, as well as to aid its borrowers to meet their payments. Although the agency acquired a total of 198,189 houses, all but 144 have been sold. Most of them were marketed before the outbreak of the war and the ensuing boom in real estate values.

On October 31, 1946, the remaining number of borrowers' accounts had been reduced to 399,875. About 604,000 borrowers and purchasers of HOLC houses had paid off their mortgage balances in full.

During the 12 months ending October 31, HOLC made a net operating profit of $23,000,000 after paying all administrative and other costs, plus bond interests. The cumulative losses of $338,000,000 taken by the Corporation—in the sale of houses it was obliged to foreclose over the years of its operations—had been reduced by net earnings to a balance of $28,000,000 on October 31.

It is now apparent that, when liquidation is completed, the Corporation will be able to pay back to the U.S. Treasury its $200,000,000 of original capital intact, plus a moderate return. Probable losses ranging up to a billion dollars had been widely forecast when the Corporation was set up in 1933 to aid insolvent home owners, relieve distressed financial institutions of defaulted loans and restore deflated real estate and mortgage values.

Federal Housing Administration (FHA). The Federal Housing Administration was established in June, 1934, by the National Housing Act "to encourage improvement in housing standards and conditions, to create a sound mortgage market, and to provide a system of mutual mortgage insurance."

Under the Veterans Emergency Housing Program, the FHA is the operating constituent of the NHA which processes and issues priorities on materials for housing for veterans. It also insures home loans which meet FHA conditions

The FHA does not lend money but insures residential mortgage loans made by private lending institutions and also insures lenders on property improvement loans. The maximum interest rate, under Title II of the National Housing Act, is 4½ percent plus the FHA insurance premium of ½ of 1 percent, both calculated on annual outstanding balances.

In peacetime, FHA insurance normally is governed by Titles I and II of the National Housing Act. Title VI was added as a defense war measure.

Title I provides for FHA insurance of qualified financial institutions on loans for property improvements, alterations, and repairs. Although loans for these purposes ordinarily are limited to a maximum amount of $2,500 and a maximum term of 3 years, loans up to $5,000 for terms up to 7 years are insurable if the funds go to provide additional housing accommodations for veterans. Title I loans are repayable in monthly installments.

Title II provides for insurance of mortgage loans ranging up to $16,000 made by approved lending institutions All loans are amortized in monthly payments and under certain circumstances may be repaid over periods of as long as 25 years.

Title VI was added to the National Housing Act specifically to assist in providing housing for defense and war workers. A separate Housing Insurance Fund, non-mutual in character, was established. FHA temporarily stopped taking applications for Title VI loans in September 1945 when its authorization was virtually used up, but such insurance was resumed in May 1946 upon the approval of the Veterans Emergency Housing Act.

Mortgages insured under Title VI are limited to a maximum of $5,400 on a single family house; $7,500 on a two-family house; $9,500 on a three-family house; and $12,000 on a four-family house. Insured loans may cover up to 90 percent of necessary current costs. In areas where builders cannot provide sound standards of construction, design, or livability within these limits, the Federal Housing Commissioner may permit maximum mortgage amounts up to $8,100 on a single family house; $12,500 on a two-family house, $15,750 on a three-family house; and $18,000 on a four-family house.

Title VI authorizes FHA also to insure mortgages on large-scale rental projects for a maximum of 90 percent of FHA cost estimates.

Before FHA resumed Title VI insurance in May, 1946, with a total insurance authorization of $1,800,000,000, it had insured loans for approximately 450,000 dwelling units for war workers. Amendments permit FHA to issue additional insurance up to $1,000,000,000 for housing for veterans and members of the armed forces. This may be increased with the approval of the President by an additional $1,000,000,000.

From July, 1940, up to the surrender of Japan, more than 750,000 new privately-financed dwelling units went into construction under FHA inspection.

The long-term program of the FHA has enabled

more than 1,760,000 families to build, purchase, or refinance their homes or to rent modern quarters. FHA insurance written under Title II amounted to more than $5,442,000,000 as of November 30, 1946, and FHA-insured property improvement loans under Title I exceeded 6,064,000 in number and aggregated $2,427,000,000.

In addition to being self-supporting, the FHA has been able, under the participation provisions of the Mutual Mortgage Insurance Fund, to declare on certain groups of mortgages 41,000 dividends through March 31, 1946. By January 1, 1946, equity balances had accumulated in a total of 81 groups. Dividends will be received eventually by approximately 226,000 mortgagors who still remained in these groups on that date

Federal Public Housing Authority (FPHA). The Federal Public Housing Authority has responsibility for federally-financed public housing functions. At the beginning of 1946, the FPHA had four principal assignments:

1. To provide approximately 200,000 emergency temporary housing units for veterans, in cooperation with educational institutions and local bodies, by relocating and converting surplus war housing and military structures for re-use.

Completion of 200,000 temporary units is one of the goals of the Veterans Emergency Housing Program. Title V of the Lanham Act, as amended by the Mead-Lanham Resolutions of December 1945 and March 1946, authorized appropriations of $445,627,000 to pay the federal cost of the re-use program. Approximately 180,000 units are expected to be moved and remodeled at federal expense.

2. To provide federal aids for low-rent housing built before the War or deferred because of the War and to convert war housing under the United States Housing Act to low-rent status.

Before the outbreak of war interrupted construction of public low-rent housing, local housing authorities in 173 communities built 334 projects containing 105,600 units for low-income families formerly living in slum dwellings. Projects are financed with loans from the FPHA or private investors, all loans are being repaid in full, with interest, in accordance with established amortization plans. To help keep rents within the means of low-income families, the FPHA makes an annual contribution, or subsidy, which for 1945 totalled $7,414,000 or $6.03 per dwelling unit per month. To December 31, 1945, federal subsidy payments totaled $46,790,040; this represents the entire cost to the federal government since the beginning of the low-rent program. In addition, the local community is required to make an annual contribution equivalent to at least one-fifth of the federal contribution. This local contribution is made normally by exempting the projects from State and local taxes, as authorized by the United States Housing Act and State housing laws.

When the war began, only half of the program authorized under the United States Housing Act had been completed. Units under construction at that time were completed with the aid of priorities to house lower-income war workers and, after V-J Day, were turned back to full low-rent use. Additional war housing projects were built under Public Law 671, which authorized the use of low-rent housing funds for war housing construction. Early in 1946, after a Presidential finding that they were no longer needed to serve war needs, some 33,000 units in P.L. 671 projects were converted to low-rent status. Altogether, low-rent housing funds had provided 62,000 units for war workers. Some 21,000 low-rent units scheduled in areas not requiring more war housing were deferred, pending availability of building labor and materials. As of November 1, 1946, the total housing built or authorized under the United States Housing Act comprised 193,643 dwellings in 747 projects.

3. To manage public war housing during the period of reconversion and demobilization for distressed families of veterans and servicemen, for certain civilian employees of the War and Navy Departments and of private industries completing war contracts, and for distressed families dislocated as a result of the war or demobilization.

The major wartime function of FPHA was to provide publicly financed housing for in-migrant war workers and their families; the FPHA was responsible for the construction and management of about four-fifths of the total provided. The remainder was provided by other agencies, principally the War and Navy Departments and the United States Maritime Commission. For the total public war housing program, some $2,500,000,000 was made available, all from congressional appropriations or loan authorizations except $29,000,000 expended by the New York State Division of Housing.

From these funds some 856,000 accommodations were provided for in-migrant war workers and their families. All but 16,000 of these units had been completed by December 31, 1945 The war housing completed includes 590,000 family dwelling units, 169,000 dormitory units, and 81,000 trailers, portable shelters, and other forms of stop-gap housing. These figures include accommodations made available by re-use of trailers and temporary or demountable units that were moved from one location to another.

In addition to veterans accommodated by the relocation of surplus facilities, on November 1, 1946, 272,000 veterans' and servicemen's families were living in public housing remaining at its wartime location. Such families accounted for over 44 percent of all occupied war and low-rent housing units in programs administered by the FPHA.

4. To dispose of federally-owned housing surplus to the above needs.

The FPHA on November 1 had some 523,000 units completed or under construction contract to dispose of when surplus to veterans' and other demobilization needs These include: 244,000 temporary units, which must be removed within 2 years after the emergency; 184,000 permanent units, including 113,000 of standard construction, and 71,000 demountables which may be dismantled and re-erected at new locations; 14,000 permanent family units, built with U.S. Housing Act funds and presently used as war housing, to be turned over to the use of low-income families; 35,000 trailers; and 46,000 family and dormitory units converted from existing structures.

Other FPHA housing includes: (a) 50 projects built by PWA and operated as low-rent housing, (b) 30 subsistence homesteads projects, which were transferred from Farm Security Administration and are being disposed of: (c) Three Greenbelt towns which were transferred to FPHA in 1942 for management and eventual disposition; and (d) seven limited-dividend projects constructed by private corporations with the aid of government loans. Mortgages on four have been sold, and the remaining three may also be sold.

JACK H. BRYAN.

NATIONAL INVENTORS COUNCIL. Created in August, 1940, by the Secretary of Commerce, the Council is a central clearing house for inventions and suggestions relating to the national security and welfare. Since its creation, more than 220,000 inventions have been carefully examined and evaluated, a surprisingly large number of which have proved meritorious and useful.

Dr. Charles F. Kettering, President of the General Motors Research Corporation, is Chairman, and other members include eminent scientists, inventors, Government officials, and business men well versed in the application of new devices, all of whom serve without compensation. The Council staff is assisted by a group of competent engineers and technical experts—each a specialist in his own field—furnished by the Office of Technical Services of the Department of Commerce.

JOHN C. GREEN.

NATIONAL LABOR RELATIONS BOARD (NLRB). In the last fiscal year more cases were filed with the National Labor Relations Board than in any year since the Wagner Act was enacted in 1935 A total of 12,260 cases was brought to the Board's attention, an increase of 26 percent over the number filed in the previous year. However, since nearly half of these cases were docketed during the last four months of the fiscal period, the receipt of new cases was really 50 percent greater than for the comparable period in the previous year.

Of the 12,260 cases filed in the fiscal year, 8,445, or 69 percent, involved representation questions and 3,815, or 31 percent, charges of unfair labor practices. Although this proportion is not markedly divergent from last year's, 75 to 25 percent, it represents a noteworthy departure from a trend. Since 1941 the proportion of unfair labor practice cases to representation cases has steadily declined; last year's shift in proportion thus constitutes a break in an uninterrupted decline of five years' duration.

The Board is not concerned with disputes involving wages, hours or disagreements arising over terms or interpretations of contracts. Its work is clear-cut and restricted in scope: it is entrusted with the administration of the National Labor Relations Act which guarantees American workers the right to organize and bargain collectively. In passing it Congress sought to prevent strikes over the issues of union recognition and anti-union discrimination. By preventing such disturbances it sought to promote industrial peace and equality of bargaining power through encouragement of collective bargaining.

Thus, the functions of the three-man Board are two-fold: (1) it conducts elections to determine employee representatives for collective bargaining purposes; and (2) it remedies and eliminates those unfair practices by employers which discriminate against employees in any manner because of union membership or activity.

On July 1, 1945 the Board had on its docket 1,916 representation cases—i.e., cases concerned with petitions filed by employers or employees requesting Board investigation and determination of units and freely-chosen representatives for purposes of collective bargaining. With the filing of 8,445 new election cases, the Board's preoccupation with a total of 10,361 such cases reached an all-time high. During the year it closed 7,981 of these cases, leaving a balance of 2,380 on its docket July 1, 1946.

Most of the above cases were closed by Board-conducted elections or cross-checks of company payrolls with union authorization cards. The remaining cases closed were either withdrawn by the parties filing the petitions or dismissed by the Board for lack of merit.

During the year the Board conducted 5,589 elections in which 698,000 employees cast secret ballots for the organization of their choice. In 4,446 ballotings, or nearly 83 percent of the polls held, an organization was selected by at least a majority of the employees and thereupon was certified by the Board as collective bargaining representative.

Only 1,163, or 20.8 percent, of the elections held during the year were ordered by the Board. The greater number of them, 3,685, or 66 percent, were held with the consent or agreed-upon stipulation of all parties. The remaining 163 polls were prehearing elections, the result of a new Board policy instituted in November 1945 to expedite the disposition of reconversion representation issues. This policy makes it possible for elections to be conducted in certain types of cases without awaiting a formal direction of election by the Board in Washington; any necessary hearing may be held after the conduct of the election.

Affiliates of the American Federation of Labor were successful in attaining majority designation in 2,004 polls, receiving 175,332 votes; unaffiliated unions scored in 484 instances and received 90,874 votes, and in the remaining 1,143 contests there were 168,965 ballots cast against union affiliation.

From July 1935 through June 30, 1946, the Board conducted nearly 30,000 elections and cross-checks. The importance of self-determination to the individual worker is demonstrated by the consistently high percentage of employees who actually cast ballots: Nearly 7,000,000 workers, or 83 percent of those eligible to vote, went to the polls and, by secret ballot, signified their choice of bargaining representative. About 84 percent marked their ballots in favor of a representative.

The Board carried over from its previous year 1,321 unfair labor practice cases. With the 3,815 new such charges filed during the year, the total to be handled was 5,136. Of these, 2,909 cases were closed in the fiscal period, leaving a balance of 2,227 unfair labor charges pending on its docket July 1, 1946.

The unfair labor practices which deny, abridge, or interfere with employees' right to bargain collectively are enumerated in Section 8 of the Act. In essence, employers are forbidden to:

(1) interfere, restrain or coerce employees in their self-organizational rights,

(2) dominate, interfere with, or support the formation or administration of any labor organization;

(3) discriminate in any manner in regard to hire or tenure of employment in order to discourage or encourage membership in a union;

(4) discriminate against an employee for filing charges or giving testimony under the Act; and

(5) refuse to bargain collectively with the duly chosen representatives of employees.

As in the past, the most frequent allegation of unfair labor practice in such cases filed in the fiscal period involved discriminatory treatment because of union activity. This was alleged in 64 percent of such cases docketed. Next in frequency was the allegation of employer refusal or failure to bargain in good faith. This allegation was made in 32 percent of the charges filed.

Approximately 72 percent of the 2,909 unfair labor practice cases disposed of during the year were closed by withdrawal or dismissal. To remedy the unfair labor practices found to have been com-

mitted in the remaining 793 cases the Board obtained the reinstatement of 3,184 workers found to have been discriminatorily discharged. Another 384 employees were directed to be reinstated after strikes caused by unfair labor practices. Back pay amounting to $899,297 was awarded to a total of 2,779 workers found to have suffered discrimination. Company-dominated unions were ordered disestablished in 51 cases. Notices of compliance with Board decisions and orders were directed to be posted in 529 cases. Employers were directed to bargain collectively with employee-designated representatives in 175 cases.

From July 1935 through June 30, 1946, the Board had ordered the reinstatement of over 300,000 workers, some with back pay. These back pay awards totalled nearly $11,000,000. In all approximately 2,000 company unions have been disestablished. In 5,000 cases collective bargaining was ordered. In 7,200 cases notices of compliance with Board decisions were directed to be posted.

The Board's jurisdiction extends only to those industries engaged in or affecting interstate commerce. In its eleven years of operation approximately 90,000 cases have been filed by labor organizations, employers and individual workers of the continental United States, Alaska, Hawaii, and Puerto Rico. As was the experience in previous years, most of the cases docketed in the 1946 fiscal period involved manufacturing enterprises. A total of 9,227, or 75.3 percent of all those filed, concerned such companies. Mining, agriculture, forestry, and fishing plants were involved in 484 cases; construction, wholesale and retail trade, and insurance companies accounted for 1,061; the remaining 443 cases involved transportation, communication, and other public utilities.

While the Board has its headquarters in Washington, D.C., it maintains twenty-two Regional Offices, each responsible for servicing a particular area. The greatest number of cases brought to the Board's attention during 1946 originated in the New York area; the lowest number of cases was filed in Puerto Rico. With the exception of that office, there occurred an increase in the number of representation and complaint cases filed in all of the Regional Offices. The biggest increase over the previous year was noted in the Indianapolis and San Francisco offices, 103.4 and 62 percent respectively.

Decisions and orders of the Board are not self-enforceable. Either the company or the Board may appeal to the Circuit Court of Appeals. Beyond this, either party may appeal to the Supreme Court. Over 600 Board decisions have been litigated in the Federal courts since passage of the Act. In the Circuit Courts, 346 of these Board orders were enforced in full; 73 were set aside, and 167 modified. Of the 52 cases that reached the Supreme Court, Board orders were enforced in 48 cases; in only 2 cases were Board orders set aside.

The Board began its 1947 fiscal period with a back-log of 4,607 cases pending on its books, the greatest carry-over in the history of Board operations. Alongside this, a cut made in the Board's appropriation for the new fiscal year necessitated the discharge of 23 percent of the Board's personnel. The Board estimates that the current rate of intake of cases plus the immensity of the back-log, aggravated by the reduction in personnel, may mean the doubling of the amount of time normally required to process cases. Meanwhile, until Congress has had an opportunity to consider the Board's request for appropriate fiscal relief so that it can perform its statutory duties promptly and efficiently, the Board publicly expressed the hope that labor organizations would be patient and not return to the self-help of strikes which the Act was designed to discourage.

LOUIS G. SILVERBERG.

NATIONAL MEDIATION BOARD (NMB). A nonpartisan independent Board of the U.S. Government, created by amendment of the Railway Labor Act in 1934, whose duty is to mediate differences between the railroads, the express and Pullman companies, and the airlines on the one hand and their employees on the other. Chairman: Frank P. Douglass.

NATIONAL PARKS AND MONUMENTS. Record-breaking travel highlighted National Park Service activity during 1946. More than twenty-one and a half million visitors were recorded at national parks, national monuments, and other areas which make up the 21,081,875-acre National Park System This travel exceeded by approximately 600,000 the number of visitors during the previous record travel year of 1941, the last before the outbreak of World War II.

National Park Service personnel charged with the administration, maintenance, and protection of these areas for the benefit and enjoyment of the public were faced with the problem of reconverting from a wartime to a peacetime basis, a problem intensified by shortages of supplies and labor. This reconversion problem also beset the concessioners who, under contract with the Federal Government, operate such facilities as hotels, lodges, and transportation lines. In some areas visitors who had not made advance reservations for stopovers during weekend and holiday periods were unable to obtain accommodations. In a few national parks the stay of visitors had to be limited. But there were few complaints. Visitors for the most part appeared to be grateful for the opportunity to see and enjoy these great places of nature and human history.

One unit—Adams Mansion National Historic Site, Quincy, Massachusetts—was added to the National Park System in 1946. Touro Synagogue in Newport, Rhode Island, also was designated as a National Historic Site, but being privately owned it is not administered as a unit of the National Park System.

Legislation enacted by Congress in July 1946, abolished Santa Rosa Island National Monument, Florida, a unit of the National Park System since 1939, and provided for the transfer of its land to Escambia County for local recreational purposes. Congress also enacted legislation changing the designation of Custer Battlefield National Cemetery to that of a national monument.

Units of the National Park System at the close of 1946 totalled 169, classified as follows: 27 national parks, 4 national historical parks, 85 national monuments, 11 national military parks, 1 national battlefield park, 7 national battlefield sites, 11 national historic sites, 9 national memorials, 10 national cemeteries, 3 national parkways, and the system of National Capital Parks.

On April 12, 1946, first anniversary of the death of President Franklin Delano Roosevelt, ceremonies dedicating the Home of Franklin D. Roosevelt National Historic Site, Hyde Park, New York, which is Federally owned, were held at the Site, with President Harry S. Truman, Mrs. Franklin D. Roosevelt, Secretary of the Interior J. A. Krug, and other notables in attendance. Three other units of the National Park System also dedicated in 1946 —which, incidentally, was the thirtieth anniversary year of the establishment of the National Park

Service by act of Congress—were Olympic National Park in Washington, dedicated on June 15, and Isle Royale National Park in Michigan, and Mammoth Cave National Park in Kentucky, dedicated on August 27 and September 18, respectively.

During 1946 lands in 8 recreational demonstration areas administered by the National Park Service were turned over to the States or disposed of in some other manner. In addition part of another area was added to Wind Cave National Park, South Dakota, more than doubling the size of that park. Disposition of these recreational demonstration area lands was provided for by act of Congress of June 6, 1942. More than a decade ago 46 such areas were acquired by the Federal Government primarily for the purpose of retiring submarginal agricultural lands and demonstrating to local communities their value when developed for recreational purposes. Six of these areas now remain, and the lands therein will be turned over to the States or other agencies as soon as arrangements can be made for such transfers.

One of the major developments of the year was the appointment by Secretary of the Interior J. A. Krug of a group of consultants to make a thorough study of concession policies and practices throughout the National Park System and make recommendations for their improvement. In the group are representatives of the hotel, touring, accounting, and conservation fields. Appointment of another consultant representing the traveling public is planned. For the most part, visitor facilities, such as hotels, lodges, stores, and transportation lines in National Park Service areas are owned and operated by concessioners who are under contract with the Federal Government, a system which had its beginning in the act of Congress establishing Yellowstone National Park in 1872

NEWTON B. DRURY.

NATIONAL WAGE STABILIZATION BOARD The National Wage Stabilization Board succeeded, on December 31, 1945, to the wage stabilization functions of the National War Labor Board. Like its predecessor, the Wage Board was a tripartite agency, consisting of two representatives of industry, two of labor, and two of the public.

The program administered by the Wage Stabilization Board did not include, as had the wartime program, any participation in the settlement of wage disputes Nor did it include, except in the Building and Construction Industry, any limitations upon the right to put into effect any wage increases which might be agreed upon in collective bargaining, or made voluntarily by an employer.

The basic provision of reconversion wage controls was that wage increases, although they could be made without government approval, could be used as a basis for seeking an increase in price ceilings only to the extent they were approved by the Wage Stabilization Board. Similar rules covered wage increases which would result in increased costs to the United States Government on cost-plus contracts Reconversion wage controls were in general, therefore, "indirect" controls, and were really an adjunct of the price control program.

The standards used to determine the approvability of wage increases for price relief purposes were established by executive order of the President, under the Stabilization Act. In general, these standards provided for the approval of wage increases found necessary to eliminate "substandards," to match increases in the cost of living, or to remove "gross inequities." The Board approved, under the substandards provision, any increases which brought wage rates to no more than sixty-five cents an hour. Increases were approved under the cost-of-living standard so long as they did not result in wage rates more than 33 percent above the January 1, 1941, levels. This percentage represented the rise in the cost of living between the base date and September 1945. The gross inequities standard provided for the approval of increases necessary to bring wage rates, or increases during the reconversion period, into line with those in related plants or industries.

The Board also administered the statutory provision prohibiting the making of any wage decreases except upon the showing of special circumstances set out in the Act of 1942.

The provisions of the Stabilization Act and the orders and regulations which were issued under it provided for the assessment of penalties where wage adjustments were made in violation of the substandard provisions. The principal sanction was in the form of a provision that wages found to have been paid in violation of the Act should be recommended to the Treasury Department for disallowance as business expense deductions on the income tax During the reconversion period, and after the general substitution of "indirect" for "direct" wartime controls, these sanctions were imposed only with respect to unlawful increases in the Building and Construction Industry (where direct controls were retained) and in the case of the wage reductions.

The Board handled between 1,000 and 1,500 cases a week. Most of these were handled in one of the 12 regional boards which had been established, originally as part of the War Labor Board organization, throughout the country. These regional boards were also tripartite in nature. They carried the bulk of the Board's administrative responsibility. The control of wages in the Building and Construction Industry was carried out by the Wage Adjustment Board, which was composed of representatives of the AFL Building Trades Department, the leading industry trade associations, and representatives of the public appointed by the Secretary of Labor.

The general program administered by the Board was, throughout the course of its operations, a "tapering off" program. As prices were decontrolled in a particular industry, wage decontrols followed automatically. The program was one of planned withdrawal from the field of government controls as the peacetime production processes were restored to the point where controls became unnecessary.

The administration of this program was not unattended by substantial difficulties, most of them inherent in any program of even planned withdrawal and retreat. There developed, cumulatively, difficulties as to whether the withdrawal of controls was proceeding too rapidly or too slowly. The virtual emasculation of the price control program by the Congress in July 1946, rendered exceedingly difficult the continued administration of the wage program. The sharp upturn in the cost of living which followed the legislative action resulted in almost overpowering demands for a relaxation of the wage approval standards and for the removal of even the indirect wage controls.

These difficulties reached a peak in connection with the Board's handling of the Maritime case in September 1946 and with the even more rapid speeding up of price decontrols in the following month. The Maritime case resulted finally in an overruling of the Board's decision by the Director of Economic Stabilization. The meat and other

price decontrols in October meant the lifting of the related wage controls in all of the industries affected. The program of the Board entered the liquidation stage at this point.

It seems a fair appraisal of the Board's work that, without interfering with production or collective bargaining, it contributed very substantially to the resistance to inflationary pressures during the critical early reconversion period.

W. Willard Wirtz.

NATIONAL WAR FUND. The War Fund was organized in 1943 as a federation of the leading war-related appeals, with the exception of the Red Cross, for providing comforts, hospitality and entertainment for our armed forces and merchant marine, recreational and educational materials for prisoners of war, and supplementary emergency war relief to the people of our Allies and to wartime refugees from Axis oppression.

The War Fund's joint appeal was presented to the American public through community war funds and war chests, linked in Community Chest cities with campaigns for established local services for health and welfare. Forty-three thousand individual soliciting committees in cities, towns and townships took active part in raising funds for the federated appeal.

The National War Fund was a voluntary war agency. Although not government-controlled or financed, it was government-endorsed, and it operated in accord with the President's War Relief Control Board.

Member Agencies: USO (United Service Organizations), United Seamen's Service, War Prisoners Aid, Philippine War Relief (of the United States), Belgian War Relief Society, United Service for China, American Relief for Czechoslovakia, American Aid to France, Greek War Relief Association, American Relief for Holland, American Relief for Italy, United Lithuanian Relief Fund, Friends of Luxembourg, American Relief for Norway, American Relief for Poland, United Yugoslav Relief Fund, American Field Service, Refugee Relief Trustees, U.S. Committee for the Care of European Children.

Officers: President, Winthrop W. Aldrich; Secretary, Ralph Hayes; Treasurer, Gordon S. Rentschler; Vice-presidents, Jean B. Adoue, Jr, Prescott S. Bush, Robert M. Hanes, Francis P. Matthews, Walter Rothschild, Edward L. Ryerson, Robert G. Sproul, and Henry M. Wriston; Chairman of Budget Committee, Gerard Swope; Chairman, Public Relations, Thomas D'Arcy Brophy, General Manager, Harold J. Seymour. Headquarters: 46 Cedar Street, New York 5, New York.

NAVAL PROGRESS. Research. With the collapse of the German Reich, a Naval technical mission composed of several hundred technical investigators, scientists, engineers, and technicians was sent to Europe to study German scientific and engineering developments. One missile studied by the group was a radio-controlled glide bomb equipped with a television camera capable of reporting its progress to a television receiver on board a control plane. Another was an underwater bomb that continued on its path to the target after reaching the water and submerging. Another weapon, an electrically guided anti-aircraft missile, maintained contact with the firing plane at all times in flight by means of a thin, strong wire. It was steered by electrical impulses to opposing aircraft.

In addition to specific knowledge gained in the studies connected with this mission, Assistant Secretary of the Navy H. Struve Hensel made an observation on the best method of achieving scientific progress: "There is an important lesson to be learned from a survey of German research. Results in general do not come quickly. Years of effort are usually necessary to produce a single new weapon."

The Office of Research and Invention, established in May, 1945 (renamed, late in 1946, Office of Naval Research), was the agency charged by the Navy with the responsibility of promoting research not only for immediate requirements but as a means of holding scientific supremacy in weapons and facilities of the future. The prospect of harnessing atomic energy to drive ships as well as gas turbine propulsion for ships, became a matter of interest. The latter was unveiled in a showing at the Naval Engineering Experimental Station, Annapolis, Maryland. To keep abreast of missile experimentation, the Navy program called for extensive research in supersonic aerodynamics. Several of the best German supersonic wind tunnels were dismantled and brought to the United States for experimentation, and with them came German scientists with knowledge to reinforce our own. One item, the world's largest device for measuring air density by optical means, has previously never been duplicated outside of Germany. To prepare for airplanes that travel faster than sound, an ejection cockpit that is sprung free of the plane, thus carrying the pilot to safety in case of emergency, has already been developed.

Turning to the man and his capabilities in the face of revolutionary conditions of speed and performance, a giant centrifuge, capable of simulating various physical stresses placed upon the high speed traveler, is under construction for experimental purposes. A new instructional procedure, preparing men on the ground to perform efficiently in the air, is in operation in the Navy's Special Devices Center, under the cognizance of ONR. Operating conditions of flight are simulated realistically, and men are charged with making proper responses without danger of sudden death or loss of expensive equipment.

Field Research. The laboratory cannot serve as a complete substitute for the field, however, and the Navy in 1946 took part in several important expeditions seeking the answer to what the future might bring in material and construction changes.

Tests Able and Baker of Operation Crossroads resulted in a voluminous mass of information which, when evaluated, will point the way to changes in design and construction of ship superstructures, as well as of hull design and interior fittings. The effects of radiation are likewise under medical study for protection of personnel. See Bikini Tests, Military Progress.

To keep abreast of a new age of strategy, the air age, the 45,000 ton U.S.S. *Midway* steamed in convoy with three destroyers and a tanker into the below zero Arctic Labrador Sea area on a test of carrier-air operations and cold weather equipment in March. In July Captain Richard H. Cruzen led a five ship group through the Labrador Sea and into Baffin Bay via Davis Strait. This training mission was itself a prelude to the year's-end sailing of a 12-ship expedition commanded by Rear Admiral Richard E. Byrd into Antarctica. The announced purpose: training, testing equipment, developing techniques for operating bases under arctic conditions. One result already apparent: carrier-air operations can effectively extend to subarctic regions in defiance of ice, snow, and frigid winds.

Demobilization. While career Navy personnel were looking to the future with research, the return of war veterans high on points for release back to civilian life was taking place. Ships of the Naval Transportation Service, augmented by combatant and auxiliary vessels, achieved one of the great mass movements of history. In spite of 100 ft. waves and 80 mi. per hr. winds, the *Saratoga*, the *Lake Champlain*, the *Yorktown*—illustrious carrier names—carried up to 4,000 passengers per trip on a shuttle service back to the States. The *Nevada*, the *Arkansas*, and other battleships carried 1,000 plus each trip. And so on, until more than 2,200,000 persons, including Army, Navy, Marine, and Coast Guardsmen, with additional civilian workers and prisoners of war, came in from the far Pacific. Another 122,178 were flown in by the Naval Air Transport Service. In the Atlantic, an additional 96,000 landed, leaving behind them the last big hurdle on the way to the separation centers.

By early September, 29 separation centers for Navy personnel alone had been shut down, with separatees totaling 3,070,581 of an original total on duty on V-J day of 3,400,000. Those remaining on duty were, with only rare exceptions, men who had asked retention of their own free choice. As of January 1, 1946, the Coast Guard reverted to its status as part of the Treasury Department.

Admiral Chester Nimitz, writing for *All Hands*, the Bureau of Naval Personnel Information Bulletin, said in February: "At the present moment, less than five months after the defeat of Japan, your Navy has not the strength in ships and personnel to carry on a major military operation."

With the cutback in personnel, immobilization of ships became a necessity. On the East Coast, the 16th Fleet began to accumulate in permanent berthing areas. The Ready Reserve Fleet, set up to include 73 major combatant ships and six auxiliaries, was to be assigned to training duty. The Laid-Up Reserve, scientifically dehumidified and preserved in fighting trim for prompt recovery in case of emergency, would total 651 major combatant types, including 18 aircraft carriers, 62 escort carriers, 7 battleships, 31 cruisers, 178 destroyers, 254 destroyer escorts, and 101 submarines. By Navy Day, 27 October, the task of putting this inactive fleet into its peacetime state was 55 to 60 percent completed in 15 berthing areas. At the same time, more than 1,456 merchant marine ships had been put into anchorages in temporary reserve.

Personnel. By year's end the personnel picture had brightened again, with enlistments making the draft unnecessary and applications from Reservists for permanent commissions bulging well beyond the totals in complement authorized by Congress. Looking forward to an age of highly developed mechanical complexities and accelerated scientific progress, the Navy unveiled its newest Reserve Officers' Training Program, the Holloway plan. Devised by a board of naval officers and civilian college presidents, and utilizing the nation's colleges and universities to supplement Naval Academy facilities, the plan provides for a four year college education, tuition, books, and fees as well as monthly retainer pay to successful candidates.

The Naval Reserve Officer Training Program, paying fifty dollars per month plus normal education expenses, has been established at 52 specific colleges and universities, and augments book and laboratory instruction with summer cruisers. The Naval Aviation College Program, with similar financing, allows two years of college education at an accredited college or university of the candidate's choice, followed by two years of flight training as a midshipman, and then a return to college for completion of the last two years of undergraduate study either on active duty pay or on retainer pay of one hundred dollars per month in addition to normal education expenses. Upon successful completion of these training programs, the graduates may become affiliated with either the regular Navy or the Naval Reserve, following stipulated lengths of active duty.

Ex-servicemen, too, have an opportunity to rejoin the Navy for inactive duty in the Naval Reserve. With a force of one million men contemplated for the postwar Organized and Volunteer Reserves, the Bureau of Personnel readied a training program that became effective July 1, 1946. Men of the Organized Reserve could attend drills, a term redefined to mean lectures and educational sessions rather than physical training programs, and take two weeks cruises with pay Volunteer Reservists would have no demands on their time at all, but would be eligible for the two weeks cruises with pay upon application. Available also were correspondence courses and activities bulletins designed to keep them current on naval affairs. The Air Reserve put the latest in naval aircraft at the disposal of qualified Reservists, to keep them in flying readiness and give them full opportunity to practice navigation, formation flying, carrier landings, etc. Projected plans for 1947 on the east coast alone called for the training of 62,500 Reservists in a series of two weeks cruises.

The Navy in Diplomacy. To give point to the Navy's belief that as long as commerce used the sea lanes the fleet must be kept strong, and its admonition that the Reserve should be kept intact, it became evident in 1946 that the Navy was a vital part of the country's diplomatic framework Into the troubled Mediterranean, for temporary duty with the 12th Fleet, went the new carrier *Franklin D Roosevelt*. Secretary James Forrestal stressed the Navy's part in diplomacy in a public statement, and Fleet Admiral Nimitz stated, in an address before the Associated Press Managing Editors at Miami, Florida: "Sea power helps to implement foreign policy. Our foreign policy has two aims. One is the creation of and participation in an international authority capable of adjusting affairs between nations to keep the peace. The other is to safeguard the interests of the United States Our sea power serves both the national and the international policy"

Organization. With the immediate emergency past, the war safely won, and the new problems of the postwar world looming large, Fleet Admiral Ernest J. King was relieved by Fleet Admiral Chester W. Nimitz in January, 1946 as Chief of Naval Operations. Entering 1947, the top command reporting to Admiral Nimitz was set up as follows: Admiral John H. Towers, Commander in Chief, Pacific Fleet, comprising Naval Forces Western Pacific (Admiral C. M. Cooke, Jr.); Naval Forces Japan (Vice Admiral R. M. Griffin), Pacific Reserve Fleet (Admiral Richard S. Edwards); and the First Task Fleet (Vice Admiral A. E. Montgomery). The Commander in Chief, Atlantic Fleet, Admiral Marc A. Mitcher in turn had under his cognizance Naval Forces Europe (Admiral R. L. Conolly); Naval Forces Germany (Rear Admiral R. E. Schuirmann); Atlantic Reserve Fleet (Admiral Thomas C. Kin-

kaid); and the Second Task Fleet (Vice Admiral W. H. P. Blandy). Task fleets were expected to conduct training exercises twice yearly.

The U.S. Naval appropriation 1945–1946 was $24,116,411,064.

Foreign Navies. The return of peace saw the continuation of construction on ships already being built in some countries and the abandonment of construction on many blueprinted vessels in countries having powerful fleets. Great Britain stopped work on several ships under construction, among these ships were the *Gibraltar, Malta,* and *New Zealand* (large carriers), as well as two 33,000 ton ships of the *Ark Royal* class and four *Hermes* class destroyers. The French have resumed construction on the 8,000 ton cruiser *De Grasse* at Lorient, and in Australia building got underway in April, 1944 for a new cruiser Spain has embarked on a construction program that envisions twenty destroyers, eight sloops, seven minesweepers, and twelve coast guard vessels.

Great Britain. The *Malaya, Ramillies, Resolution,* and *Revenge* have been assigned to harbor duties. The *Warspite* has been scrapped, and British strength in capital ships is now ten units, including the *Vanguard,* according to Jane's *Fighting Ships,* issue 1944–1945. This source further indicates that the *Queen Elizabeth, Valiant, Nelson, Rodney,* and *Renown* will be used for training duty, leaving only five battleships for service in the Home and Mediterranean fleets. The appropriations 1946 estimated budget was £255,075,000.

France. The war cost half the effective strength of the fleet. The battleship *Jean Bart* is being completed and rearmed, and the aircraft carrier *Béarn* has been reclassified as a transport d'aviation. The *Dixmude* (ex H.M.S. *Biter*), an escort carrier, has been acquired. Allied nations provided the French with six destroyer escorts, six frigates, fifty motor minesweepers, and almost one hundred coastal craft, in addition to the French active duty strength of three battleships, nine cruisers, and various smaller craft.

U.S.S.R. Exact information on the state of the Navy is difficult to obtain, but recent acquisitions include the battleship *Arkangelsk* (ex H.M.S. *Royal Sovereign*) two cruisers (ex U.S.S. *Milwaukee* and ex German *Nürnberg*) and a collection of submarines, destroyers, subchasers, and motor minesweepers of German and Allied origin.

Netherlands. The escort aircraft carrier *Karel Doorman* (ex H.M.S. *Nairana*), four former British destroyers, and eight former Australian minesweepers have been acquired.

Norway. Numerous ships of British origin, including five fleet minesweepers have been added.

Greece. The Royal Hellenic Navy has acquired four British-built submarines, and the former H.M.S. *Tanatside,* renamed the *Adrias.*

Denmark. With most of her fleet scuttled to prevent its use by the Germans, Denmark is acquiring frigates, corvettes, and minesweepers.

Sweden. Two cruisers and one large destroyer of the *Uppland* class have been recently launched.

Turkey. Britain returned one destroyer, three submarines used by the Royal Navy during the war, in addition to Turkey's recently acquired H.M.S. *Cribi.*

Canada. In 1946, about 10,000 men were on duty, manning one light fleet aircraft carrier, two cruisers, fourteen destroyers, and many smaller ships.

South America. Brazil has added eight destroyer escorts, one transport, and sixteen submarine chasers to its fleet, all from the United States Navy. Chili purchased three corvettes from Canada, and suffered the loss of the *Lautaro,* a training ship, through fire at sea.

CHARLES R. BELL.

NAVY, U.S. Department of the. A Department of the U.S. Government, established in 1798, which supervises and maintains a naval establishment in readiness for the performance of such duties as the President, who is Commander in Chief, may order. The principal divisions of the Department are as follows:

Executive Offices of the Secretary
Office of the Chief of Naval Operations
Bureau of Yards and Docks
Bureau of Naval Personnel
Bureau of Ordnance
Bureau of Ships
Bureau of Supplies and Accounts
Bureau of Medicine and Surgery
Bureau of Aeronautics
Headquarters United States Marine Corps

For organization and activities of the U.S. Navy, see the article on NAVAL PROGRESS. Secretary of the Navy in 1946: James V. Forrestal.

NECROLOGY. The following is a list of notable persons who died during the year 1946.

Alekhine, Alexander A. (Moscow, Russia, November 1, 1892—Estoril, Portugal, March 24, 1946). *Russian-French.* Lawyer who was considered the greatest chess master of all time. He defeated Capablanca in 1927 and, as world champion, won eight tournaments. Author of *My Best Game of Chess,* etc

Allen, Sir Hugh (England, 1869—Oxford, England, February 20, 1946). *British* Professor of Music at Oxford University and president of the Royal College of Organists Chairman of the music advisory committee of the British Broadcasting Corporation

Andrada, Antonio Carlos de (Barbacina, Brazil, 1870—Rio de Janiero, Brazil, January 2, 1946) *Brazilian* Statesman. Served as acting president of Brazil in absence of Getulio Vargas Friend of democracy and stressed bond with the United States

Antonescu, Ion (Rumania, 1882—Bucharest, Rumania, June 1, 1946). *Rumanian* Former dictator of Rumania Executed for war crimes

Arliss, George (London, England, April 10, 1868—London, England, February 5, 1946) *British* Actor of stage and screen; author World-famous for screen impersonations of Disraeli, Wellington, Rothschild, Voltaire, etc

Arnold, Waldo Robert (Kiel, Wisconsin, May 8, 1896—Milwaukee, Wisconsin, November 7, 1946). Editor. Managing editor of the *Milwaukee Journal* since 1938 He was chairman of the Managing Editors Association of The Associated Press During the first World War he was a member of an intelligence unit

Arthur, Sir George Compton Archibald (England, April 30, 1860—London, England, January 14, 1946). Biographer, soldier, baronet Wrote biographies of King George V, Queen Mary, Field Marshal Lord Kitchener, and many others.

Atwill, Lionel (Croydon, England, March 1, 1885—Hollywood, California, April 22, 1946). *British* Actor. Among his better known stage plays were *The Walls of Jericho, The Little Minister, Hedda Gabler;* and among his motion pictures were *Mystery of the Wax Museum, Nana, Firebird, Captain Blood,* and *Hound of the Baskervilles.* Famous for his portrayal of Ibsen roles in England. He started as an architect

Baird, John Logie (Helensburgh, Scotland, 1888—Bexhill, England, June 14, 1946). *British.* Television expert He invented the Televisor, which was the first instrument to transmit scenes by wire or wireless, and the Noctovisor, which enables one to see in the dark by invisible rays He demonstrated television in color, in 1928, and stereoscopic television, in December, 1941. He was president of Baird Television, Ltd., and consulting technical adviser to Cable and Wireless, Ltd., since 1941.

Baker, Sir Herbert (Kent, England, 1862—Kent, England, February 6, 1946). *British.* Architect, whose work was distinguished by its geographical range. Did a series of buildings in South Africa and reconstructed Bank of England, his most important work Published a memoir of Cecil Rhodes as well as his own memoirs, *Architecture and Personalities.* Awarded Royal Gold Medal for Architecture in 1927.

Baker, Ray Stannard (Lansing, Michigan, April 17, 1870—Amhurst, Massachusetts, July 12, 1946). Author and editor. Popular under pen name of "David Grayson." His

most notable work, *Woodrow Wilson—Life and Letters*, won for him the Pulitzer prize in biography, in 1940.

Bankhead, John Hollis (Lamar County, Alabama, July 8, 1872—Bethesda, Maryland, June 12, 1946). Democratic Senator from Maryland, from 1930 to his death, who was author of the Cotton Control Act and the Farm Tendency Bill. Lawyer for the power interests, president of the Bankhead Coal Company, from 1911 to 1925.

Bantock, Sir Granville (London, England, August 7, 1868—London, England, October 16, 1946). *British.* Composer, conductor, teacher, and leader in contemporary music. Emeritus professor of Music at Birmingham University, vice chairman of the Corporation of Trinity College of Music, London Sir Granville was knighted in 1930. His compositions include music for the *Electra* of Sophocles, *The Pierrot of the Minute*, and *The Seal-Woman* (opera).

Bartlett, Captain Robert A. (Brigus, Newfoundland, August 15, 1875—New York, New York, August 27, 1946). Explorer He was present at Peary's discovery of the North Pole and became an annual commuter to the Arctic. He found and rescued Donald B. Macmillan stranded in the Arctic, he escaped from the disastrous Vilhjalmur Stefanssen expedition through the Bering Straits when the Canadian flagship, Karluk, was crushed by ice, and he piloted the Stell-McCracken expedition which discovered mummies of Stone Age men on the Aleutian Islands He became an American citizen in 1911 and was a superintendent of marine transportation during World War I.

Barton, John (Germantown, Pennsylvania, 1877—New York, New York, December 23, 1946) Actor. He played the leading role, of Jeeter Lester, in *Tobacco Road*, for over nine years, to audiences of over five million people in some two thousand performances For twenty-five of the forty-five years he was on the stage, he appeared with his wife, Ann Ashley, on the music-hall circuit. *Canal Boat Sal* was their best known act.

Bateman, Harry (Manchester, England, May 29, 1882—Utah, January 21, 1946). Researcher, author and chess player in international matches Held professorships in three fields mathematics, physics, and aeronautics. Author of many standard texts in higher mathematics. Did outstanding work with Albert Einstein and other leading scientists.

Bates, Sir Percy Elly (England, May 12, 1879—Neston, England, October 16, 1946). *British* Chairman of Cunard Steamship Company, Ltd , since 1930, and became chairman of the Cunard White Star Lines in 1934 He strongly advocated the policy of weekly express service between Southampton and New York He died of a heart attack the day he was to have sailed on the Queen Elizabeth, on her maiden voyage

Beard, Mary (Dover, New Hampshire, November 14, 1876—New York, New York, December 4, 1946) Nurse and educator Former associate director of the International Health Division of the Rockefeller Foundation and director of the American Red Cross Nursing Service, 1938–1944. She developed a program of fellowships for nurses in thirty-eight foreign countries and established grants for American nurses to go abroad. Author of *The Nurse in Public Health*.

Beery, Noah, Sr. (Western Missouri, 1884—Hollywood, California, April 1, 1946) Stage and screen actor. Noted for his portrayals of villains

Bell, James Carleton (Mount Vernon, Ohio, December 11, 1872—Winter Park, Florida, February 27, 1946). Psychologist, educator, and professor emeritus of education at the City College of New York. Founded the *Journal of Educational Psychology* and organized the New York Society for the Experimental Study of Education.

Benjamin, Patriarch (Adramytion, Turkey, 1868—Istanbul, Turkey, February 18, 1946). *Turkish.* Patriarch of the Greek Orthodox Church. Largely responsible for healing the schism between the Greek Orthodox Church and its Bulgarian branch

Berl, Ernst (Froudenthal, Austria, July 7, 1877—Pittsburgh, Pennsylvania, February 16, 1946). Explosives expert, research professor His most important work was conversion of vegetation into fuel During the war he was consultant for the United States Government. From 1933 to 1945 he was a research professor at the Carnegie Institute of Technology. Chief chemist for Austria-Hungary in first World War.

Blomberg, Field Marshal Gen. Werner von (Stargard, Poland, 1878—Nurenberg, Germany, March 13, 1946) *German.* One-time confidant of Hitler Ousted as head of German High Command after marrying a "commoner" Represented Germany at the Disarmament Conference in Geneva.

Bodelschwingh, Rev. Friedrich von (Germany, 1877—Germany, January 8, 1946) *German.* Former Bishop who, with the Rev. Martin Niemoeler, led the struggle for the freedom of the Protestant Church in Nazi Germany. Known as "the pastor of the poor" Directed Bethel Institute, long noted for its Christian charity work

Boetto, Pietro Cardinal (Vigone, Italy, May 19, 1871—Rome, Italy, January 31, 1946). *Italian* Archbishop of Genoa. Only Jesuit member of the College of Cardinals. Resisted Nazi dictation and in April, 1945, persuaded German forces in the Genoa area to surrender without a fight

Bogomolets, Alexander Alexandrovich (Kief, Ukraine, 1881—Russia, July 19, 1946). *Russian.* Biologist and author Discoverer of an anti-reticular cytotoxic serum, which hastens wound and fracture healing and which he claimed would also prolong the normal life span to 150 years President of the All-Ukrainian Academy of Science. Author of *The Prolongation of Life* and many other widely published scientific works.

Bond, Carrie Jacobs (Janesville, Wisconsin, August 11, 1862—Hollywood, California, December 28, 1946). Song writer and poet. Her most successful compositions were *I Love You Truly*, and *The End of a Perfect Day*

Bowes, (Major) Edward E. (San Francisco, California, June 14, 1874—Rumson, New Jersey, June 13, 1946). "Patron saint" of amateurs in the entertainment world, through his radio programs, realtor, theater manager, philanthropist; and civic reformer. Former executive of Metro-Goldwyn-Mayer

Boyd, Ernest (Dublin, Ireland, June 28, 1887—New York, New York, December 30, 1946). *Irish-American.* Author, critic, and diplomat He was known for his caustic wit and his championship of Irish literature Formerly vice consul for Britain. He founded *The American Spectator*, a "literary newspaper," and he wrote editorials, drama and political comments for various periodicals.

Boynton, Percy Holmes (Newark, New Jersey, October 30, 1865—New London, Connecticut, July 8, 1946). Author and educator Dean of the College of Arts, Literature, and Science at the University of Chicago, 1912–1923. Author of *The Rediscovery of the Frontier, Literature and American Life, America in Contemporary Fiction.* Wrote literary criticism for *The Nation, The New Republic, Virginia Quarterly Review.*

Brooke, Zachary N. (England, February 1, 1883—England, October 7, 1946) *British* Professor of Medieval History, University of Cambridge. Editor of *Cambridge Medieval History*, and author of *The English Church and the Papacy, 1066–1210* and *A History of Europe, 911–1198.*

Brown, Roscoe Conkling Ensign (Scottsville, New York, August 23, 1867—Brooklyn, New York, December 13, 1946) Former managing editor and assistant editor of *The New York Tribune* and professor emeritus of Columbia University Author with W F Johnson of *A Political and Governmental History of the State of New York.*

Brunswick, Dr. Ruth Mack (Chicago, Illinois, 1898—New York City, January 25, 1946) Psychoanalyst and psychiatrist. Associated for many years in Vienna with the late Dr. Sigmund Freud Instructor at the New York Psychoanalytic Institute Contributor to the *Psychoanalytic Quarterly* and the *International Journal of Psychoanalysis.*

Budd, Edward Gowen (Smyrna, Delaware, December 28, 1870—Germantown, Pennsylvania, November 30, 1946). Automotive engineer and industrialist Founder and president of the Edward G Budd Manufacturing Company, of Philadelphia, Pennsylvania Leader in development of the welded all-steel automobile body, the steel-disk wheel, and the light-weight, stainless-steel train, airplane, and boat He also developed the first sheet-metal pulleys

Buell, Raymond Leslie (Chicago, Illinois, July 13, 1896—Montreal, Canada, February 20, 1946) Authority on international relations and world affairs, lecturer, professor, author, editor Held offices in many international organizations Urged United States' participation in world unity

Burdenke, Lieut. Gen. Nikolai Nilovich (Russia, 1878—London, England, November 12, 1946) *Russian* Surgeon He headed a special Soviet commission investigating the Katyn Forest massacre of 11,000 Polish war prisoners He served as a surgeon in World War I, and the Russian Revolution. He founded the Institute for Surgical Neuropathology. He was a member of the Soviet Academy of Sciences, the American, Royal (British), and International College of Surgeons. He received the Stalin Prize and was twice decorated with the Order of Lenin

Caballero, Francisco Largo (Spain, 1870—Paris, France, March 23, 1946). *Spanish.* Labor leader Often called the "Lenin of Spain." Was Socialist Premier of the Spanish Republic during the Civil War. One of the leaders responsible for the overthrow of the monarchy and the establishment of the Spanish Republic in April, 1931.

Cadman, Charles Wakefield (Johnstown, Pennsylvania, December 24, 1881—Los Angeles, California, December 30, 1946). Composer One of the first to become interested in the music and folk-lore of the American Indian. *The Land of the Sky-Blue Water* and *At Dawning* are the best known of his hundreds of compositions based on Indian themes He also wrote several operas, including *Shanewis* and *A Witch of Salem.* He was voted one of America's outstanding composers along with Sousa, Deems Taylor, E S Kelly, and J. A. Carpenter.

Cadman, Paul F. (Oakland, California, November 4, 1889—Oakland, California, November 11, 1946). Economist and educator. Director of research and assistant to the president of the Henry J. Kaiser Company. For four

years he was economist of the American Bankers Association Formerly associate professor of economics and dean of men of the University of California. Author of several treatises on economics.

Calza, Dr. Guido (Milan, Italy, 1888—Rome, Italy, April 17, 1946). *Italian.* Archaeologist and lecturer. Excavator of Ostia, the Port of Rome; found earliest known Christian church. Lectured at the University of Rome. Author of *La Necropol del Porto di Roma Nill Isola Sacra.*

Cameron, Charlotte (Portsmouth, England—London, England, December 11, 1946). *British.* Explorer, author, and lecturer. Made extensive journeys into India, South America, Russia, Alaska and the Yukon, the South Seas, and Borneo Author of *A Durbar Bride, A Woman's Winter in South America,* etc. She was granted the Order of the British Empire. She was the wife of the late Major Donald Cameron of the 42nd Highlanders.

Carpenter, Clarence W. (Westport, New York, 1888—Honolulu, Hawaii, February 21, 1946). Pathologist who was best known for his research work on the Lahaina disease which threatened the Hawaiian sugar industry. Member of the American Association for the Advancement of Science and the Hawaiian Botanical Society.

Cavan, Field-Marshal Lord Frederic R. Lambert (England, October 16, 1865—London, England, August 28, 1946). *British.* Field-Marshal in the British army since 1932, he had served in South Africa in 1901 and in Europe during World War I He was in charge of operations of the 10th Italian army on the Piave front in 1918 and was chief of the Imperial General Staff from 1922 to 1926.

Chalmers, Philip O. (Port Huron, Michigan, 1900—Rio de Janeiro, Brazil, February 15, 1946). Diplomat, former businessman. Chief of Brazilian affairs in the United States Department of State

Clapham, Sir John H. (Manchester, England, 1873—London, England, March 29, 1946). *British.* Economic historian, professor Former chairman of the employment committee of Cambridge

Colton, John B., Jr. (Minnesota, December 31, 1889—Gainesville, Texas, December 28, 1946) Playwright. His greatest success was as co author, with Clemence Randolph, of the drama *Rain* He was also author or co-author of *The Shanghai Gesture, The Flitting Lady, Drifting, The Devil's Plum Tree,* and *Nine Pine Street.* Most of his plays were adaptations of novels or plays written by others

Conti, Italia (London, England, 1873—Bournemouth, England, February 8, 1946) *British* Actress and founder of London stage-training school for children. Founded Rainbow League which helps British hospitals and youth organizations Starred in *As You Like It, The Merry Wives of Windsor,* etc.

Cortés Castro, Leon (Alajuela, Costa Rica, December 8, 1882—Santa Ana, Costa Rica, March 3, 1946). *Costa Rican.* Statesman, jurist, and educator Formerly president and vice president of Costa Rica, president of *Congreso Nacional,* administrator of *Ferrocarril Pacifico,* twice minister of public development, minister of public education, minister to Guatemala, judge, and school teacher

Cowles, Gardner (Oskaloosa, Iowa, February 28, 1861—Des Moines, Iowa, February 28, 1946). Publisher of the *Des Moines Register and Tribune.* Previously a banker, he served as director of the Reconstruction Finance Corporation under Hoover. In 1934 established the Gardner Cowles Foundation which distributed nearly $10,000,000 to educators and charitable institutions in Iowa

Cowles, William Hutchinson (Evanston, Illinois, August 14, 1866—Spokane, Washington, January 15, 1946). Newspaper publisher, philanthropist. Director of The Associated Press for thirty-three years

Crowe, Frank T. (Quebec, Canada, October 12, 1883—Redding, California, February 26, 1946). Engineer. Directed construction of Boulder, Shasta, and eighteen other western dams. Associated with the Bureau of Reclamation for twenty years

Cullen, Countee (New York, New York, May 30, 1903—New York, New York, January 9, 1946). One of the most distinguished Negro poets, scholar and teacher, who won a Guggenheim Fellowship Author of *Ballad of the Brown Girl, The Black Christ* and other volumes.

Cunliffe, John William (Lancashire, England, January 20, 1865—Ogunquit, Maine, March 18, 1946). Journalist, educator, author, who was an authority on English literature Former director of the Columbia University School of Journalism Author or editor of many works in the field of literature, as *Modern English Playwrights* and *Leaders of the Victorian Revolution.*

Curry, John Steuart (Dunavant, Kansas, November 14, 1897—Madison, Wisconsin, August 29, 1946). Artist His paintings were chiefly of rural life in the midwest; other paintings were of circus life and historical events

Dealey, George B. (Manchester, England, September 18, 1859—Dallas, Texas, February 26, 1946). Dean of American newspaper publishers, who worked for seventy-one years with the *Dallas Morning News,* progressing from office boy to owner Fought the Ku Klux Klan in Texas. Active in civic, philanthropic, and educational affairs.

Dewart, William Thompson, Jr. (New York, New York, June 12, 1909—Reno, Nevada, January 3, 1946). Publisher President of *The New York Sun.* In 1940, he unveiled the sidewalk plaque naming the famous newspaper area—at Park Row, Nassau and Spring Streets, New York City—"Printing House Square."

Didur, Adamo (Galicia, Austria-Hungary, December 24, 1874—Katowice, Poland, January 7, 1946). Famous basso formerly with the Metropolitan Opera Company in New York. Also skilled dramatic actor. Greatest performance in title role of *Boris Godunof.* Internationally known.

Dixon, Thomas (Shelby, North Carolina, January 11, 1864—Raleigh, North Carolina, April 3, 1946). Novelist, playwright, and Baptist minister. His book *The Clansman* provided the story for the first million-dollar movie, *The Birth of a Nation* He also wrote *The Flaming Sword, The Southerner, Foolish Virgin, A Man of the People,* and many others.

Donald, William Henry (New South Wales, Australia, June, 1875—Shanghai, China, November 9, 1946) *Australian.* Journalist. Trusted adviser to Chinese leaders, from Sun Yat Sen to Chiang Kai-shek. Known as "Donald of China," he spent over forty-three years in China and helped unite its leaders against the Japanese.

Drummond-Hay, Lady Grace Marguerite Hay (Liverpool, England, 1895—New York, New York, February 12, 1946) *British.* Aviator and journalist. Only woman on Graf Zeppelin's first flight across the Atlantic. Formerly president of the Women's International Association of Aeronautics. Held the military "blue certificate" for blind flying. Assistant to Karl H. von Wiegand, chief foreign correspondent of the Hearst newspapers. Interned with him in Santo Tomas concentration camp, but both were released because of his blindness. Interviewed many world figures including Gandhi and Goering

Dubois, Louis (Belle-Isle-en-Mer, France, 1861—Paris, France, January 25, 1946) *French.* Politician. Former president of the Reparation Commission Led the extreme Rightist-Nationalist bloc which advocated more payment by Germany and less by France

Dunhill, Thomas F. (Hampstead, England, February 1, 1877—Lincolnshire, England, March 13, 1946). *British* Composer and professor at the Royal Academy of Music He wrote the overture to *Maytime* and the opera, *The Enchanted Garden,* for which he received the Carnegie award in 1925

Dunsterville, Maj. Gen. Lionel Charles (England, 1865—March 18, 1946). *British* He served in the British army at Waziristan, 1894–95; the North West frontier, in India, 1897–98; China, 1900; and World War I In 1920 his first book, *The Adventures of Dunsterforce,* was published. His later works include *And Obey, Stalky's Reminiscences,* and *Stalky Settles Down* Rudyard Kipling made him the hero of his *Stalky and Co.* as a result of their having been schoolmates at Westward Ho College

Dwight, Col. Arthur Smith (Taunton, Massachusetts, March 18, 1864—Hobe Sound, Florida, April 1, 1946). Mining and metallurgical engineer Co-inventor of the Dwight and Lloyd sintering process for sulphide ores. Cited by General Pershing for his work in organizing the Army Engineers during the first World War.

Eby, Kerr (Tokyo, Japan, October 19, 1889—Norwalk, Connecticut, November 18, 1946) Noted etcher. As an artist war correspondent, accompanying the marines in the Pacific, covering Tarawa and other engagements his work emphasized hatred of war. Published a book of his own pictures entitled *War.*

Elwood, C. E. (See article on SOCIOLOGY)

Epstein, Mortimer (Died· June 23, 1946). *British.* Editor of *The Statesman's Year Book* since 1921 and *The Annual Register* since 1919 He held a long record of public service in the Jewish community Among his publications are *An Early History of the Levant Company* and a translation of Sombart's *Socialism and the Social Movement*

Eubank, Earle Edward (See article on SOCIOLOGY.)

Falbo, Italo (Cassano, Italy, 1876—New York, New York, February 18, 1946). Newspaper editor, politician, physician, composer, and magazine publisher Editor of *Il Progresso Italo-Americano* for twenty-six years. Former member of the Social Democratic Party of Italy

Falk, Maurice (Pittsburgh, Pennsylvania, December 15, 1866—Miami Beach, Florida, March 18, 1946) Philanthropist and steel leader, who was known as "Little Carnegie." Created the Maurice and Laura Falk Foundation endowed with $10,000,000 for religious, charitable, and educational purposes.

Falla y Matcau, Manuel de (Cadiz, Spain, 1876—Buenos Aires, Argentina, November 14, 1946). *Spanish.* Considered one of the foremost composers of the modern Spanish school. His best works were *The Three-Cornered Hat* and *Love the Magician.* His works also included two operas, *Life is Short* and *Master Peter's Puppet Show.* Won an annual award of the Academy of Fine Arts at Madrid. In 1939, he was named president of the Institute of Spain.

Fields, W. C. (Philadelphia, Pennsylvania, January 29, 1880—Pasadena, California, December 25, 1946). Pro-

fessional name of Claude William Dukenfield, who traveled all over the world as a juggler until 1924 when he "blossomed forth" as a great comedian in motion pictures. He was a master mimic, inimitable in his droll asides and in improvising his script. Some of his best characterizations were Humpty Dumpty, in *Alice in Wonderland*, and Macawber, in *David Copperfield*. He also appeared in *The Great McGonigle, Mississippi* and many others.

Fitz-Gerald, John Driscoll, II (Newark, New Jersey, May 2, 1873—Urbana, Illinois, June 8, 1946). Head of the Spanish Department at the University of Arizona from 1929 to 1943 and, until more recently, professor of romance philology. Delegate to South America for the American Association for International Conciliation, in 1914; delegate of the National Education Association to the seventh assembly of the World Conference of Education Associations in Tokyo, in 1937, contributor on Hispanic literature to the NEW INTERNATIONAL ENCYCLOPÆDIA and the NEW INTERNATIONAL YEAR BOOKS (1913–45), and associate editor of *The Romanic Review*. *Rambles in Spain* is one of his books.

Fleisher, Benjamin Wilfred (Philadelphia, Pennsylvania, January 6, 1870—Rochester, Minnesota, April 29, 1946). Publisher and editor, from 1908 to 1940, of *The Japan Advertiser*, an English-language daily in Tokyo, Japan.

Flexner, Simon (Louisville, Kentucky, March 25, 1863—New York, New York, May 3, 1946) Medical researcher, author and professor Organized and directed the Rockefeller Institute for Medical Research from 1904 to 1935. Eastman Professor at Oxford University, 1937 and 1938

Foley, James A. (New York, New York, 1882—New York, New York, February 11, 1946). Jurist, who served twenty-six years on the bench in Surrogate's Court of New York He won nation-wide reputation and was widely quoted Revised inheritance laws and brought about wide social reform, handled famous estates and served on committees in connection with estate laws

Fontenay, Viscount de (France, March 14, 1864—Versailles, France, March 27, 1946) *French*. Diplomat who was former ambassador for France to the Vatican, Spain, and Denmark. He was also president of the International Diplomatic Academy.

Frank, Karl Hermann. (Germany, 1898—Prague, Czechoslovakia, May 22, 1946). *German* Nazi "protector" of Bohemia First Nazi of Cabinet rank to be executed for war crimes Was responsible for the destruction of Lidice.

Gaffey, Hugh J. (Hartford, Connecticut, November 18, 1895—Fort Knox, Kentucky, June 16, 1946) Major General, United States Army. In World War II he led the Third Armored DIVISION that was sent to the rescue of Bastogne, chief of staff of Third Army under Lt. Gen. George Patton

Gardiner, Alfred G. (Chelmsford, England, 1865—Buckinghamshire, England, March 3, 1946) *British*. Author and one of the best known editors of this century, who edited the *Daily Press*. Political writer under his own name and humorist under pseudonym of "Alpha of the Plough" His books include *Prophets, Priests and Kings, Pillars of Society*, and *The War Lords*

Gardner, Dr. Leroy Upson (New Britain, Connecticut, December 9, 1888—Saranac Lake, New York, October 24, 1946) Silicosis expert, who was director of the Saranac Laboratory and the Trudeau Foundation, international leader in the research of silicosis and other industrial diseases, and who taught at Harvard and Yale Medical Schools He received the William S Knudsen Award for research on silicosis and the Trudeau Medal.

Gates, Caleb Frank (Chicago, Illinois, October 18, 1857—Denver, Colo., April 9, 1946) Missionary and educator. Former President of Robert College in Istanbul, Turkey, and an authority on the Near East Served as chairman of the Near East Relief Commission to Constantinople, from 1917–1919

Gaumont, Léon (France, May 10, 1864—France, August 11, 1946) *French* Motion picture inventor who developed synchronization of projector with phonograph and introduced three-color process in motion picture photography.

Gay, Edwin Francis (Detroit, Michigan, October 27, 1867—Pasadena, California, February 8, 1946). Economist, historian, and professor Chairman of the research staff of Huntington Memorial Library Formerly dean of the Graduate School of Business Administration at Harvard University and president of the *New York Evening Post* One of the organizers and officers of the Council on Foreign Relations. Director of research for the Bureau of Economic Research for the Committee on Recent Economic Changes of the President's Unemployment Conference, from 1924 to 1933

Glass, Carter (Lynchburg, Virginia, January 4, 1858—Washington, D C., May 28, 1946). Prominent figure in American politics, who was Senator from Virginia, from 1920 until his death. He was Secretary of the Treasury, under Wilson, from 1918 to 1920, member of Congress, from 1902 to 1918; and chairman of the committee reporting the Federal Farm Land Bank Act. He was principal author of the Federal Reserve Act. Formerly owned and published *The Lynchburg News* and *Advance*

Glennon, John Joseph (County Heath, Ireland, June 1862—Dublin, Ireland, March 8, 1946). *Irish*. A bishop in the Roman Catholic faith, he was advanced the College of Cardinals just fourteen days before death. He was responsible for the erection of the cathedral in St Louis, Missouri.

Glintenkamp, Hendrik (Augusta, New Jersey, Septem 10, 1887—New York, New York, March 19, 194 Painter, sculptor, wood engraver, etcher, and teac who excelled in landscape painting and whose work exhibited in London, Russia, and, in this country, at Metropolitan Museum of Art and the Museum of Mod Art. Author of *A Wanderer in Woodcuts*, illustrated his own work.

Goldsborough, Phillips Lee (Cambridge, Maryland, gust 6, 1865—Baltimore, Maryland, October 22, 194 Republican Governor of Maryland, 1912 to 1916, Un States senator from Maryland, 1929 to 1935, a direc of the Federal Deposit Insurance Corporation, 1935 1946.

Goldthwaite, Nellie Esther (Jamestown, New York, 1 —South Hadley, Massachusetts, November 25, 194 Food chemist and researcher One of the first women hold a research associate appointment at the Rockefe Institute of New York City. Head of the chemistry partment of Mount Holyoke College from 1897 to 19 Best known for basic research work on the use of pe in jelly making

Gort, Field Marshal Viscount John Standish S.P.V. (B in July, 1886—London, England, March 31, 194 *British*. Commander in Chief of the British Expedition Force in France and Belgium, 1939 and 1940, Gover and Commander in chief of Gibraltar and Malta, 194 1944, High Commissioner for Palestine and Trans Jor 1944 to November, 1945 He was known as "The Tig because of his fiery energy and fighting spirit, and responsible for saving the lives of 325,000 British sold at Dunkerque

Gouraud, Gen. Henri Joseph Eugene (Paris, France, vember 17, 1867—Paris, France, September 16, 194 Victoriously led French Fourth Army against the Germ in the Battle of Champagne in World War I. Called "Lion of the Champagne," gave the famous "stand die" order

Granville-Barker, Harley (London, England, Noven 25, 1877—Paris, France, August 31, 1946) *Brit* Playwright, actor, director, producer, and professor. was director of the British Institute of the University Paris, 1937–39. Visiting professor. Yale, 1940, Harv 1941–43.

Gudakunst, Dr. Don W. (Paulding, Ohio, August 1894—Chicago, Illinois, January 20, 1946) Medical rector of the National Foundation for Infantile Paraly Formerly Michigan State Health Commissioner

Hackzell, Anders Werner Antil (Mikkeli, Finland, tember 20, 1881—Helsinki, Finland, January 15, 194 *Finnish* Statesman, lawyer and business man For Prime Minister of Finland and former Finnish envo Moscow Negotiated armistice with Russia in 1944

Hall, Fred S. (Washington, D C., 1871—Winter P Florida, January 31, 1946) Social worker Associate rector of the charity organization department of the I sell Sage Foundation Collaborated with Mary E R mond on *American Marriage Laws, Child Marriages, Marriage and the State* Founder and first editor of Foundation's Year Book

Hamilton, Clayton (Meeker) (Brooklyn, New York, vember 14, 1881—New York, New York, September 1946) Playwright, lecturer, editor, and dramatic c who served on sixteen annual juries to choose Pul Prize plays and was dramatic critic and associate ed of *The Forum*, etc. Author of *The Stranger at the Inn* other plays.

Hansson, Per Albin (Scania Province, Sweden, Octo 28, 1885—Stockholm, Sweden, October 5, 1946) *Sw ish*. Prime Minister since 1932 Former journalist anti-militarist, he directed all his efforts to maint Sweden's neutrality during both World Wars

Hart, William S. (Newburgh, New York, December 1872—Los Angeles, California, June 23, 1946). St and screen actor, author, and philanthropist Known his leading roles in "western" pictures during the d of silent films and for his stage roles in *Ben Hur*, *The* ginian, and other plays, including several Shakespear dramas

Hauptmann, Gerhart (Silesia, Germany, November 1862—Silesia, Germany, June 8, 1946). *German* Dra tist, novelist, and poet Known as the patriarch of man literature Won the Nobel Prize for Literature 1912 The drama, *The Weavers*, is considered his grea work; some of his other works, including prose, are *Narr in Christo Emanuel Quint*, *Der Ketzer von Soa* and *Atlanta*. His earliest work was *Promethidenlos* poem.

Haushofer, Karl (Munich, Germany, July 27, 186 Frankfort on the Main, Germany, March 10, 194 *German*. Educator. An influential adviser to Hitler.

geopolitical theories of "living space" and "large-scale economy" were adopted by the Nazis One of the founders of the Berlin-Tokyo alliance. Author of *Geopolitics of the Pacific Ocean, World Politics of Today,* and *Geopolitics of War.* He committed suicide with his wife.

Healy, Robert E. (Bennington, Vermont, March 25, 1883—Philadelphia, Pennsylvania, November 17, 1946) Member of the United States Securities and Exchange Commission. Served as an Associate Justice of the Supreme Court of Vermont; as chief counsel for the Federal Trade Commission; as a member of the executive committee of the National Association of Railroad and Utilities Commissioners, and as a former chairman of the Public Utility Law Section of the American Bar Association.

Henry, Mellinger Edward (Mount Pleasant, Pennsylvania, 1874—Englewood, New Jersey, January 31, 1946). Collector of Southern mountaineers' folksongs; retired teacher; and veteran mountain climber He edited *Folksongs from the Southern Highlands, Breech Mountain Ballads,* and other similar collections

Herman, Dr. Raphael (Koenigsburg, Germany, December 15, 1865—Beverly Hills, California, April 7, 1946) *German-American* businessman Donor of a $25,000 peace prize in 1925 for "the best educational plan calculated to produce world peace." From 1895 to 1903 published the *Acetylene Journal* Since 1905 president and treasurer of the Diamond Power Specialty Company. Founder of the Detroit Museum of Art Advisory Member of the Council of Internal Relations.

Hill, Patty Smith (Louisville, Kentucky, 1868—New York, New York, May 25, 1946). Expert on progressive education. Professor emeritus of education, Columbia University. Director of the experimental kindergarten in Louisville Author of the well-known verse, *Happy Birthday*

Hillman, Sidney (Zagare, Lithuania, March 23, 1887—Long Island, New York, July 10, 1946). Labor leader. National chairman of the CIO Political Action Committee. State chairman of American Labor party President of Amalgamated Clothing Workers Union, 1914 until his death. In 1940 he became associate director of the Office of Production Management

Hoagland, Dr. Charles Lee (Benkleman, Nebraska, 1907—New York, New York, August 2, 1946). Physician Developed a new treatment of cirrhosis of the liver and infectious jaundice. Was one of the fifteen full members of the Rockefeller Institute. Achieved success in several fields of medical research

Hoffman, Dr. Frederick L. (Varel, Germany, May 2, 1865—San Diego, California, February 23, 1946) Statistician, author, and expert actuary Former vice president of the Prudential Insurance Company of America in Newark, New Jersey Founder of the American Cancer Society, for which he received the Clement Cleveland Medal Award of the New York City Cancer Committee Author of *Cancer and Civilization* and *Problems of Longevity*

Holmes, Walter G. (Jackson, Tennessee, July 9, 1861—New York, New York, February 7, 1946) Benefactor of the blind Editor and manager of the *Matilda Ziegler Magazine,* published in Braille for free distribution to the blind

Holt, Dr. Edwin Bissell (Winchester, Massachusetts, August 21, 1873—Rockland, Maine, January 25, 1946). Psychologist, professor, and author Pioneer in behavior psychology One of William James' most distinguished students Author of *A Concept of Conscious, The Freudian Wish and Its Place in Ethics,* etc

Homma, Lieut. Gen. Masaharu (Died: Los Banos, Philippine Islands, April 3, 1946). *Japanese.* Conqueror of Bataan and Corregidor. He was executed for ordering the "Death March" at Bataan and for condoning other atrocities in the Philippines

Hopkins, Harry Lloyd (Sioux City, Iowa, August 17, 1890—New York, New York, January 29, 1946). Friend and advisor of President Roosevelt; adviser and assistant to President Truman until July, 1945. Secretary of Commerce from 1938 to 1940, in charge of the lend-lease program; as personal envoy of President Roosevelt, persuaded Premier Stalin to agree to freedom of discussion at the San Francisco Conference; laid the groundwork for the Potsdam Conference Chairman of the Anglo-American Munitions Assignments Board Made two missions during the war to Moscow and to London. Headed Works Progress Administration.

Hutchison, Lieut. Col. Graham Seton (Inverness, England, January 20, 1890—Buckinghamshire, England, April 3, 1946). *British.* Author, publicist, educator, and artist. Wrote a famous spy novel of World War I, *The W Plan*

Ingram, Rt. Rev. Arthur Foley Winnington (Worcestershire, England, January 26, 1858—London, England, May 26, 1946). Bishop of London from 1901 to 1939 His many published books included *The Potter and the Clay, What a Layman Should Believe, Some World Problems,* and *The Secrets of Happiness.*

James, Alexander (Cambridge, Massachusetts, December 22, 1890—Dublin, New Hampshire, February 26, 1946). Portrait and landscape painter whose work is represented in the Metropolitan Museum of Art and other permanent American exhibitions.

Jeans, Sir James Hopwood (London, England, September 11, 1877—Surrey, England, September 17, 1946). *British.* Scientist, educator, and author. His most original work was done in the field of cosmogony where he showed the cause of spiral nebulae. He interpreted many new developments in science to the lay public in relativity, quantum theory, radio activity, atomic energy, and the transmutation of the elements With his countryman and fellow astronomer, Sir Arthur Eddington, he preached the doctrine of the ultimate death of the universe. He was knighted in 1928 and received the Order of Merit in 1939

Johnson, Herbert (Sutton, Nebraska, October 30, 1878—Philadelphia, Pennsylvania, December 4, 1946). Political cartoonist From 1912 to 1941, he was a member of the staff of *The Saturday Evening Post*

Johnson, Walter (Humbolt, Kansas, November 6, 1887,—Washington, D.C, December 10, 1946). Professional baseball player and manager. "Big Barney" was with the Washington Senators, for twenty-one years. He pitched 113 shut-outs since 1907, struck out more batters than any other pitcher, and held forty-three other world records He was one of the first five men to be named for baseball's Hall of Fame

Jones, Mabel Wagnalls (Atchison, Kansas, April 20, 1871—New York, New York, March, 22, 1946) Pianist, author, editor, and philanthropist. In connection with the Wagnalls Memorial at Lithopolis, Ohio (see illustrations opposite page 641), she founded and endowed the first free school in America for the study of Esperanto Author of *The Rosebush of a Thousand Years* (which was the original story for the motion picture, *Revelation,* in which Mme Nazimova was featured), and other books and stories Editor of *Letters to Lithopolis from O Henry to Mabel Wagnalls* and the musical terms in the *Standard Dictionary*

Kains, Maurice Grenville (Ontario, Canada, October 10, 1868—Suffern, New York, February 25, 1946). Horticulturist, author, and educator. Agriculture and botany editor of the NEW INTERNATIONAL ENCYCLOPÆDIA. Former professor and head of the department of horticulture at Pennsylvania State College. Published twenty-seven books, one of which, *Five Acres and Independence,* was a best seller in 1935

Kalinin, Mikhail Ivanovich (Verkhnyaya Troitsa, Russia, November 20, 1875—Moscow, U S S R, June 3, 1946) President of the Soviet Union for twenty-seven years, until his retirement on March 19, 1946 He had been a leader in the revolution Through his great popularity with the peasants, he was able to strengthen their belief in the policies of the Soviet government, especially the Five Year Plan

Kefauver, Grayson Neikirk (Middletown, Maryland, August 31, 1900—Los Angeles, California, January 5, 1946) Educator and author Dean of the School of Education at Stanford University, on leave He had recently been appointed United States representative on the Preparatory Commission of the United Nations Educational, Scientific, and Cultural Organization

Kennedy-Purvis, Admiral Sir Charles Edward (1885—London, England, May 26, 1946) *British* Navy leader, Deputy First Sea Lord. Formerly president of the Royal Naval College at Greenwich, Vice Admiral commanding the Royal Naval War College, and Commander in Chief of the America and West Indies station.

Keynes, Lord John Maynard (Cambridge, England, June 5, 1883—Sussex, England, April 21, 1946). *British* Economist, Parliamentary orator, and historian. Author of the controversial, *The Economic Consequences of the Peace,* and many other books His place in economics was formally recognized in 1942 with publication of the King's Birthday Honors naming him first Baron of Tilton He was vice president of the World Bank and Fund, principal representative of the Treasury and Deputy for the Chancellor of the Exchequer on the Supreme Economic Council after World War I

Keyserling, Count Hermann (Koenna, Estonia, July 21, 1880—Innsbruck, Austria, April 26, 1946). *Estonian* Writer and lecturer. His annual lecture tours included Italy, Spain, Portugal, France, Hungary, Rumania, Turkey, the United States, and most of the South American countries Among his published works are *The Travel Diary of a Philosopher, The Recovery of Truth, Creative Understanding,* and *America Set Free*

Kingsbury, Edward Martin (Grafton, Massachusetts, July 16, 1854—Crawford, New Jersey, January 23, 1946) Editorial writer for The New York Times, who received the 1925 Pulitzer Prize for his editorial "The House of a Hundred Sorrows" written for the Times' annual Hundred Neediest Cases appeal His writings were anonymous, except for occasional book reviews.

Kirschenbaum, Jacob (Galicia, Poland, 1885—New York, New York, October 15, 1946) *Yiddish* Writer and member of the staff of *The Jewish Morning Journal,* since 1915 During the first World War, coördinator, with the late Louis Marshall, on the Jewish Welfare Board's cultural and social activities Author of *America the Land of Wonder,* published in Poland as a primer in American democracy for European Jewry and burned by the Nazis after their conquest of Poland,

Kobrin, Leon (Vitebsk, Russia, 1872—Brooklyn, New York, March 31, 1946). Dramatist, author, and journalist. Widely known to readers of Yiddish for his novels about immigrant Jews in American ghettos, and his plays produced on the Yiddish stage.

Kutrzeba, Stanislaw (Poland, 1876—Cracow, Poland, January 7, 1946). *Polish.* Jurist, historian, and author. President of the Polish Academy of Science and professor of Polish law at the University of Cracow. He was a member of the commission that went to Moscow in June, 1945, for consultations which led to the establishment of the present Polish government.

Lake, Kirsopp (Southampton, England, April 17, 1872—South Pasadena, California, November 10, 1946). Archaeologist and historian who for twenty-three years was a professor of history at Harvard University. Directed several important archaeological expeditions, such as the expedition to the city of Van, and made periodic visits to Mount Sinai, Mount Athos, and other Biblical sites.

Langevin, Paul (France, 1872—Paris, France, December 19, 1946). *French* Educator, physicist, and adviser to the French Bureau of Atomic Energy. He was awarded the Nobel Prize and the Copley Medal for his work in the electronic theory of magnetism. He was president of the Société Francaise de Pédagogie and professor of general physics at the College of France.

Leathers, Dr. Waller Smith (Charlottesville, Virginia, December 4, 1874—Nashville, Tennessee, January 26, 1946) Emeritus dean of Vanderbilt University's School of Medicine Formerly president of the National Board of Medical Examiners, the American Public Health Association, the Association of American Medical Colleges, and the Southern Medical Association

Leigh, Rear Admiral Richard Henry (Panola County, Mississippi, August 12, 1870—Long Beach, California, February 4, 1946) Commander in chief of the United States Navy in 1932 In 1933, he became a member of the Navy's general board in Washington and, the following year, he went with the American delegation as naval adviser to the Disarmament Conference in London.

Lewis, Gilbert N. (Weymouth, Massachusetts, October 23, 1875—Berkeley, California, March 23, 1946). Chemical researcher and educator, who was dean of the College of Chemistry at the University of California. Developed valence theory of chemical reaction. Author of *Valence and the Structure of Atoms and Molecules.* Collaborated with Dr Ernest O Lawrence in inventing the cyclotron and, with Dr. Irving Langmuir, was co-author of the Lewis-Langmuir atomic theory. With Dr. Harold C Urey, he discovered heavy water

Li Lieh-chun, General (Kiangsi Province, China, 1883—Chungking, China, February 20, 1946). Veteran Chinese revolutionary leader and State Councilor of the National Government who played a leading role in the establishment of the Republic of China and was an early supporter of Dr Sun Yat-sen Member of the central executive committee of the Kuomingtang

Little, Richard H. (Leroy, Illinois, 1870—Richmond, Virginia, April 27, 1946) Columnist, who was author of the *Chicago Tribune's* "A Line O' Type or Two." Also, as a newspaper correspondent, he covered the Spanish-American War, Russo-Japanese War, World War I, and the Russian Revolution. Drama critic for the *Chicago Herald.* Previously he had practised law.

Lorenz, Dr. Adolf (Silesia, Austria, April 21, 1854—Vienna, Austria, February 12, 1946). *Austrian.* Orthopedist, known as the "bloodless surgeon," who relieved orthopedic ailments by external manipulation rather than surgery. He was opposed by more conservative members of the medical profession. During a stay in New York City, he examined 2,203 cripples. He published his autobiography, *My Life and Work,* in 1936.

Lumsden, Dr. Leslie L. (Granite Springs, Virginia, June 14, 1875—New Orleans, Louisiana, November 8, 1946). Physician and pioneer in public rural sanitation. Officer of the United States Public Health Service for forty-one years. He had been professor of epidemiology at the Texas University School of Medicine In the first World War, he served as an Assistant Surgeon General.

Maanen, Adriaan Van (Sneek, Holland, March 31, 1884—Pasadena, California, January 26, 1946). Astronomer. Member of the staff at the Mount Wilson Observatory since 1912 He was well known among scientists for his studies of parallaxes and the proper motion of stars and nebulae, and the general magnetic field of the sun

McClung, Clarence Erwin (Clayton, California, April 5, 1870—Swarthmore, Pennsylvania, January 17, 1946). Zoologist, educator, and author, who is known for his extensive studies on chromosomes, he explained the mechanism underlying Mendel's Law Emeritus professor of Zoology at the University of Pennsylvania. Headed many scientific expeditions.

MacKinnon, Sir Frank Douglas (England, 1871—London, England, January 23, 1946). *British.* Lord Justice of Appeal since 1937 Formerly president of Johnson Society of Lichfield, chairman of the Association of Average Adjusters, president of Pegasus Club, chairman of Bucks Quarter Sessions, and president of Bucks Archaeological Society. Among his published works are *Annotations on Lamb's Old Benchers of the Inner Temple, The Murder in the Temple,* and *Grand Larceny.*

McReynolds, James Clark (Elkton, Kentucky, February 3, 1862—Washington, D.C., August 24, 1946). Justice of the United States Supreme Court, from 1914 until his retirement in 1941 He dissented, often virulently, in many important cases; such as the TVA. He was appointed Attorney General by President Wilson

Magee, Carlton C. (Fayette, Iowa, January 5, 1873—Oklahoma City, Oklahoma, January 31, 1946). Crusading editor. Helped expose the Teapot Dome scandal; attacked former Senator Albert B. Fall and brought him to prison; invented the parking meter. He founded *Magee's Weekly,* then took over the *New Mexico State Tribune.*

Mantin, Martin Thomas. (New York, New York, August 2, 1880—Fayetteville, New York, November 17, 1946). Jurist, who was former head of the United States Court of Appeals. Central figure in unique scandal; he was convicted of selling his judicial integrity for cash, served one year and seven months in a Federal Penitentiary, and paid a fine of $10,000.

Marburg, Theodore (Baltimore, Maryland, July 10, 1862—Vancouver, Canada, March 3, 1946). Publicist and writer on political and international subjects. One-time United States minister to Belgium and worker for international peace Vice president of the International Federation of League of Nations Societies in 1925. Author of *League of Nations* and other books

Marquina, Eduardo (Spain, 1879—New York, New York, November 21, 1946). *Spanish* Poet and dramatist. (See article on SPANISH LITERATURE.)

Marshall, Ray Gifford (Yankton, South Dakota, February 18, 1881—Redwood City, California, February 22, 1946) Former Far Eastern news manager for the United Press Recognized as one of foremost American journalists in the Orient

Matsuoka, Yosuke (Yamaguchi, Japan, March 3, 1880—Tokyo, Japan, June 27, 1946). *Japanese.* Diplomat, who was educated in the United States, and spent seventeen years in the diplomatic service of Japan before joining the Seiyukai party and being elected to the Diet. President of the South Manchurian Railway, from 1935 to 1939, head of the Japanese delegation at the League of Nations, from 1932 to 1933, and became Foreign Minister of Japan in 1940. He signed a preliminary pact with Hitler, in February, 1941, by which the Japanese were to attack the United States. He died while on trial as a war criminal

Maxwell, George Hebard (Sonoma, California, 1860—Phoenix, Arizona, December 1, 1946) Erosion expert and advocate of reclamation Before 1900 he gave up the practice of law to campaign for the reclamation of land, and he became known as "the man who made the desert bloom" His efforts brought about the National Reclamation Act of 1902, the Newlands river regulation amendment to the River and Harbor Bill, passed in 1917; and the construction of the Roosevelt Dam. He wrote many books on reclamation, flood prevention, erosion control, and homecraft

Mechau, Frank A., Jr. (Glenwood Springs, Colorado, January 26, 1904—Denver, Colorado, March 9, 1946). Artist and educator. He painted the murals in the Washington, D C, postoffice, was director of art classes at Columbia University, and war artist-correspondent for *Life* magazine

Medalie, George Zirden (New York, New York, November 21, 1883—Albany, New York, March 5, 1946). Associate judge of the court of appeals Formerly United States attorney for the Southern District of New York, and a member of the Advisory Committee of the United States Supreme Court

Meek, Donald (Glasgow, Scotland, July 14, 1880—Hollywood, California, November 18, 1946). Character actor and comedian of stage and screen. He appeared on the Broadway stage in *Going Up, Broken Dishes, Little Old New York,* and other plays During his thirteen years on the screen he made more than one hundred films, portraying the timid "average man."

Merivale, Philip (Manickpur, India, November 2, 1886—Los Angeles, California, March 13, 1946). Internationally known stage and screen actor who made his American debut in Shaw's *Pygmalion,* in 1914. Best known for his portrayal of Prince Sirki, in *Death Takes a Holiday* He starred in Maxwell Anderson's *Mary of Scotland* and many others

Michel, Dr. Carl (Chicago, Illinois, 1891--Bethesda, Maryland, January 3, 1946). Physician Chief medical officer of the U S Coast Guard and Assistant Surgeon General of the U S Public Health Service. Pioneer in the development of yellow fever quarantine methods Effectively fought bubonic plague and yellow fever in Mexico in 1920.

Mikhailovitch, Gen. Draja (near Belgrade, Yugoslavia, 1893—Belgrade, Yugoslavia, July 17, 1946) *Yugoslav.* A Chetnik regimental colonel, who fled to the hills from the oncoming Germans, in April 1941, and organized a band of guerrillas whose exploits against the Germans won the acclaim and aid of King Peter, the British, and the United States. In spite of this, Marshal Tito's com-

munist-dominated government executed him for treason and collaboration with the Germans

Moeslein, Rev. Mark (Pittsburgh, Pennsylvania, 1854—Baltimore, Maryland, October 28, 1946) Oldest Passionist in the world. Ordained in Rome sixty-eight years ago, he became a member of the Congregation of the Passion seventy-six years ago and became famous for his mission work among southern Negroes.

Moholy-Nagy, Ladislaus (Borsod, Hungary, 1895—Chicago, Illinois, November 24, 1946). *Hungarian-American.* Artist, educator, and writer. He came to the United States in 1937 to establish an American version of the Bauhaus, at Weimer, which taught that art could and should "come to terms with and eventually master a scientific and machine age." The achievements of the Chicago Institute of Design, under his leadership as director-president, have won the backing of the executives of such firms as United Air Lines, Container Corporation of America, Marshall Field and Company. His book, *The New Vision,* describes the work of the Bauhaus school

Morgenthau, Henry, Sr. (Manheim, Germany, April 26, 1856—New York, New York, November 25, 1946). Former ambassador to Turkey, lawyer, and real estate developer of notable achievements President of Central Realty Bond and Trust Company, which he organized with other important companies handling many of New York City's best known properties He was appointed, by Franklin D. Roosevelt, representative of the United States at a conference in Geneva

Moscicki, Ignacy (Mierzanow, Russia, December 1, 1867—Versoix, Switzerland, October 2, 1946). *Russian-Polish.* Statesman, chemist, and educator. While President of the Polish Republic, from 1926 to 1939, he acted as administrator of the dictatorial policies of his friend, Marshal Joseph Pilsudski Professor of Electrochemistry and Electrophysics in Switzerland and Poland. In 1916, he established the Polish Institute of Chemical Research in Lwów He did extensive work in nitrates and he perfected more than 300 patents on processes and apparatus.

Moskvin, Ivan Mikhailovitch (Moscow, Russia, 1874—Moscow, Russia, February 16, 1946) *Russian.* Leading actor in Moscow's Dramatic Art Theater and member of the Supreme Soviet. Excelled in portrayal of characters created by Tolstoy, Gorki, and Chekhov. He was given a state funeral. Seven dramatic scholarships were established in his name

Moss, Sanford A. (San Francisco, California, August 23, 1872—Lynn, Massachusetts, November 10, 1946) Research engineer who was developer of the turbo-supercharger, which played a major part in increasing the speed, range, and altitude of modern aircraft Consultant engineer for the General Electric Company and also for the Army, in both World Wars.

Moyle, James Henry (Salt Lake City, Utah, September 17, 1858—Salt Lake City, Utah, February 19, 1946). He founded the Democratic party in Utah, was assistant secretary of the Treasury from 1917 to 1921 and from 1939 to 1940. Former president of the Utah State Industrial School and of the Eastern States Mission of the Mormon Church. He was twice chairman of the Democratic States Committee, in Utah

Neilson, William Allan (Perthshire, Scotland, March 28, 1869—Northampton, Massachusetts, February 13, 1946) President emeritus of Smith College Former Professor of English at Columbia University and at Harvard University. He was associate editor of the *Harvard Classics* and editor-in chief of the second edition of *Webster's Unabridged Dictionary,* published in 1934 He wrote *Essentials of Poetry, Facts about Shakespeare,* and *Burns: How to Know Him*

Nevinson, Christopher Richard Wynne (Hampstead, England, August 13, 1889—London, England, October 7, 1946). *British.* Artist and author His paintings have been exhibited continuously since 1910 in London, Paris, New York City, Washington, Chicago; many have been purchased by the Metropolitan Museum, the National Gallery of British Art (the Tate Gallery), the British Museum, Luxemburg, Petit Palais, etc His books include *Modern War, Paint and Prejudice,* and *Masters of Etching Series.*

Noyes, Theodore W. (Washington, D.C., January 26, 1858—Washington, D.C, July 4, 1946) Editor-in-chief of the Washington *Evening Star* since 1908 Author of *Newspaper Libels, War of the Metals,* and other books.

Obermaier, Hugo (Ratisbon, Bavaria, 1877—Fribourg, Switzerland, 1946) *Bavarian-Spanish.* Paleontologist In 1909 he was associated with Breuil and the Prince of Monaco in excavating the prehistoric home-site at Castillo, Spain, later he became a professor at the *Institut de Paléontologie Humaine* at Paris. He returned to Castillo, before World War I, to conclude the excavations and remained in Spain until the country's civil war drove him to Switzerland, where he occupied a post at Fribourg He was a Roman Catholic priest and was well known for his quaternary geological work in the Pyrenees and the Cordillera Cantabrica as well as his work at the painted cave of Pileta in the south of Spain.

Oman, Sir Charles William Chadwick (Muzaffarpur, India, January 12, 1860—died June 23, 1946). *British.* Last of the great English historians of the old school. Chichele Professor of Modern History in the University of Oxford. His published books include *A History of the Peninsular War* and *The Art of War in the Sixteenth Century.*

Oppenheim, Edward Phillips (London, England, 1866—St Peter Port, Channel Island of Guernsey, February 3, 1946). *British* He wrote over 111 novels on glamorous international intrigue, about forty collections of short stories with the same theme, an autobiography, and some plays His writings were popular and have been translated into almost every language. *The Great Impersonation* is perhaps his best known book.

Patterson, Joseph Medill (Chicago, Illinois, January 6, 1879—New York, New York, May 26, 1946). Publisher, novelist, and playwright. He founded *The New York Daily News,* the first successful tabloid, and was president of the News Syndicate Company, which publishes it, also, with Col. McCormick, he founded *Liberty Magazine.* He was author of *A Little Brother of the Rich* and collaborated with James Keeley and Harriet Ford on the drama *The Fourth Estate.*

Peterson, Otto P. (Russia, 1871—New York, New York, February 27, 1946). Educator, relief worker, and author Former assistant professor of German at City College, New York, and a specialist in literary history. He was given the Order of the Three Stars by the Latvian Government for his relief work during the first World War, and was known also for his relief work in World War II Lectured at the University of Berlin, invited to the United States by the Government in 1925 Wrote the drama *Lenz* which showed influences of Goethe; also *Schiller in Russia,* and *Embers of Old Russia*

Pinchot, Gifford (Simsbury, Connecticut, August 11, 1865—New York, New York, October 4, 1946). He was governor of Pennsylvania twice Former chief of the U S Forestry Service, president of the National Conservation Association, and, for several years, professor of forestry at Yale University Author of *Breaking New Ground, A Primer of Forestry,* among other books

Placzeck, Dr. Seigfreid (Schwersenz, Germany, September 24, 1866—New York, New York, March 9, 1946) *German* Neurologist who was a pioneer in the study of the psychological effect of air travel and high altitudes. His published works span a quarter of a century.

Plender, Lord William (England, August 20, 1861—Tunbridge Wells, England, January 19, 1946) *British.* Noted accountant who often aided the British Government with financial counsel. He was chairman of the Fourth International Congress on Accounting in London, a member of the Royal Commission on Railways, Commissioner under the Welsh-Church Act from 1914 to 1942, and Treasury Controller of German, Austrian, and Turkish Banks from 1914 to 1918.

Pollack, Lew (New York, New York, 1896—Hollywood, California, January 18, 1946). Popular song writer. He composed *Charmaine, Diane, Miss Annabelle Lee,* etc. Associated with Twentieth Century-Fox and RKO.

Pollock, Channing (Washington, D C., March 4, 1880—Shoreham, Long Island, New York, August 17, 1946). *The Sign of the Door, The Fool,* and *The Enemy* were among his thirty produced plays In his writings and lectures he crusaded for varied reforms. From 1905 to 1919 he was a drama critic He founded and published the magazine, *The Show* and he edited the *Magazine of the Air,* a Columbia Broadcasting System program.

Porter, Louis Hopkins (New York, New York, March 16, 1874—Stamford, Connecticut, January 18, 1946). Corporation and tax lawyer. In some of his important cases, as counsel, he proved that stock dividends were not taxable as income and that certain taxes or tax laws were unconstitutional. He was director of the Yale and Towne Manufacturing Company, Alpha Portland Cement Company; Atlantic, Gulf and Pacific Company; and Hans Rees' Sons, Incorporated

Poser, Dr. Max H. (Jena, Germany, 1870—Rochester, New York, January 4, 1946) Optical researcher, who was considered one of the greatest microscopists. Designed many eye-examination instruments including the slit lamp. Life technical adviser of the American Academy of Ophthalmology and Otolaryngology.

Potemkin, Vladimir Petrovich (Russia, 1878—Moscow, Russia, February 23, 1946). *Russian.* Diplomat. Education Commissar of the Russian Soviet Federated Socialist Republic, president of the Soviet Academy of Pedagogical Science, and a member of the Soviet Academy of Sciences. Former Vice Commissar of Foreign Affairs. Ex-envoy to Greece, Italy, and France Member of the Supreme Soviet

Putnam, H. V. (Barker, New York, 1899—Cleveland, Ohio, January 16, 1946). Electrical engineer, who was vice president of the Westinghouse Electric Corporation; supervised manufacture of electric torpedoes used by the Navy during the war.

Reuter, Edward Byron (See article on SOCIOLOGY)

Rhys, Ernest (London, England, July 17, 1859—London, England, May 25, 1946). *British.* His work as creator and editor of *Everyman's Library* overshadowed his other undertakings which consisted of a dozen vol-

umes of poetry and essays, *Everyman Remembers, Song of the Sun, Wales England Wed,* and others

Rice, Bishop William A. (Born in Framingham, Massachusetts—Belize, British Honduras, February 28, 1946) Vicar Apostolic of Belize. Founder of Baghdad College in Iraq and administrator of Boston College, from 1927 to 1929

Richardson, Henry Handel (Melbourne, Australia, late 1870's—Hastings, England, March 20, 1946) *Australian* Pen name of Henriette Richardson Robertson Her first book, *Maurice Guest,* is considered one of the greatest first novels of any writer Her other works include *Ultima Thule, Australia Felix, The Way Home,* and the trilogy, *The Fortunes of Richard Maloney.*

Richmond, Admiral Sir Herbert W. (England, September 15, 1871—Cambridge, England, December 15, 1946). *British* Educator and naval historian. Master of Downing College, Cambridge, England. President of International Conference on Safety at Sea, in 1929, and of the Royal Naval War College at Greenwich, England, 1920–23 He had also been commander in chief of the East Indies Squadron, of the British Navy, and commandant of the Imperial Defense College *Naval Warfare, Sea Power in the Modern World,* and *The Invasion of Britain* were some of his books

Rios, Juan Antonio (Arauco, Chile, November 10, 1888—Santiago, Chile, June 27, 1946). *Chilean* President of Chile He was a friend of democracy and broke with the Nazis, in January 1943, despite strong opposition within his country He took office as president in April, 1942, after striving from boyhood toward that position He had formerly held all the offices in the Radical party of Chile

Rosenthal, Moriz (Lwów, Poland, December 18, 1862—New York, New York, September 2, 1946). *Polish* Concert pianist He was the last of Franz Liszt's pupils to be active on the concert stage He made almost constant appearances in Europe, the United States, and South America for half a century Among his compositions are *Variations on a Single Theme* and *Papillons*

Rowe, Leo S (McGregor, Iowa, September 17, 1871—Washington, D C, December 5, 1946) Director of the Pan-American Union, since 1920 He was United States delegate to the Third International Conference of American States; chairman of the United States delegation to the First Pan-American Scientific Congress, and a former president of the American Academy of Political and Social Sciences. Contributor to THE NEW INTERNATIONAL YEAR BOOK.

Runyon, (Alfred) Damon (Manhattan, Kansas, October 4, 1884—New York, New York, December 10, 1946) Newspaper columnist and fiction writer His characters were the Broadway theatrical agents, race-track bookies, and fight managers, such as "Harry the Horse" and "Apple Annie" His newspaper columns were *Both Barrels, As I See It,* and *The Brighter Side.* Among his books were *Guys and Dolls, Blue Plate Special, Money from Home, Take It Easy,* and several books of verse *Little Miss Marker* and *Lady for a Day* were movies based on short stories he wrote. He covered General Pershing's pursuit of Pancho Villa for the Hearst newspapers in 1916

Sacasa, Juan Bautista (León, Nicaragua, December 21, 1874—Los Angeles, California, April 17, 1946) *Nicaraguan.* Former President of Nicaragua. He was forced out of office in 1936 by a revolution He fled to El Salvador and then to the United States where he remained until his death During the revolution of 1925, he became Vice President of Nicaragua as a leader of the Liberal party He was Minister Plenipotentiary to Washington, from 1929–31 Before he entered politics, as president of the Superior Council of Public Health, he had been dean of the School of Medicine at the University of Nicaragua and at the University of León

Sachs, Joseph (New York, New York, August 17, 1870—Hartford, Connecticut, November 15, 1946) Engineer and inventor, who invented electric fuse protective devices for which he received the John Scott Legacy Medal from the Franklin Institute He held more than 250 United States patents Author, with T C. Martin, of *Electrical Boats and Navigation* His former connections included the Edison Machine Works (now the General Electric Company), the Sachs Company, and the Sachs Laboratories

Saxon, Lyle (Baton Rouge, Louisiana, September 4, 1891—New Orleans, Louisiana, April 9, 1946) Author and historian His works were mainly about Louisiana and included *Children of Strangers,* a novel; *Lafitte, the Pirate,* a biography screened as *The Buccaneer,* and *Cane River,* a short story which was awarded the O Henry Memorial Prize for 1926

Schmedeman, Albert George (Madison, Wisconsin, November 25, 1864—Madison, Wisconsin, November 26, 1946) United States Minister to Norway, 1913 to 1921; governor of Wisconsin, 1932–1934, mayor of Madison, 1926–1932 Federal Housing Administrator for Wisconsin, 1935 to 1942

Sears, Joseph Hamblen (Boston, Massachusetts, April 10, 1865—Kingsport, Tennessee, February 15, 1946). Publisher, editor, and author, former president of D Appleton and Company, book publishers, also president of J H Sears and Company, publishers. Author of *The Governments of the World Today, None But the Brave,* and *A Box of Matches*

Seton, Ernest Thompson (Shields, England, August 14, 1860—Seton Village, New Mexico, October 23, 1946) Author, artist, lecturer, authority on Indian lore and wild life He wrote and illustrated more than forty books, many of them best sellers His best-known work, *Wild Animals I Have Known,* led Kipling to write *Jungle Tales,* his *Birchbark Roll of the Woodcraft Indians* initiated the Boy Scout movement in the United States.

Sheldon, Rev. Charles M. (Wellsville, New York, February 26, 1857—Topeka, Kansas, February 24, 1946). Congregational minister, writer, and publisher, who wrote the famous religious novel, *In His Steps,* and edited the *Topeka Daily Capital* as he "believed Jesus would have run it on earth," causing a jump in the circulation from 30,000 to 370,000 Former editor of *The Christian Herald.*

Sheldon, Edward Brewster (Chicago, Illinois, February 4, 1886—New York, New York, April 1, 1946). Playwright, whose Broadway successes included *Romance* and *My Princess*

Sinclair, May (Born in Cheshire, England—Buckinghamshire, England, November 14, 1946). *British* Novelist, whose books included *The Divine Fire, Nakiketas and Other Poems, Audrey Craven, Far End,* and *Tales Told by Simpson*

Skidmore, Hubert Standish (Webster Springs, West Virginia, April 11, 1911—Daubervilie, Pennsylvania, February 2, 1946) Novelist, skilled in the vernacular of the Blue Ridge Mountain people. He was killed in a fire while on leave from an Army rehabilitation center His first novel, *I Will Lift Up Mine Eyes,* won the Avery Hopwood prize for creative work in writing, in 1935 He also wrote *Heaven Came So Near, River Rising, Hill Doctor, Hawk's Nest, Hill Lawyer,* and others

Smith, Dr Frederick Madison (Plano, Illinois, January 21, 1874—Independence, Missouri, March 20, 1946) Church leader, editor, and educator President of the Reorganized Church of Jesus Christ of Latter-Day Saints, since 1915, and editor of *The Saints' Herald,* since 1917 Formerly, he was professor of mathematics at Graceland College, editor of *The Lamont Chronicle* and *The Journal of History*

Smith, Logan Pearsall (Millville, New Jersey, October 18, 1865—London, England, March 2, 1946) Essayist and critic He became a naturalized British subject in 1913 Hailed as foremost English stylist with his book of brief essays entitled *Trivia,* his first book He published his autobiography, *Unforgotten Years,* in 1939 His critical works include *On Reading Shakespeare* and *Milton and His Modern Critics*

Snyder, Carl (Cedar Falls, Virginia, 1869—Santa Barbara, California, February 16, 1946) Author, economist, editor, and statistician. One time chief statistician of the Federal Reserve Bank of New York Author of *Capitalism the Creator*

Southwood, Viscount, né **Julius Salter Elias** (Birmingham, England, 1873—London, England, April 10, 1946) *British* Publisher who was chairman and managing director of Odhams Press, Ltd , Odhams (Watford), Ltd , *Daily Herald,* Ltd ; *Coming Fashions,* Ltd., English Newspapers Ltd , and *Illustrated News and Sketch,* Ltd He was a benefactor in many fields

Spreckels, Claus August (California, 1858—Paris, France, November 9, 1946) Sugar refiner Organizer of the Federal Sugar Refining Company of Yonkers, New York, capitalized at $10,000,000 Formerly in charge of the Spreckels Sugar Refining Company and vice president and general manager of the plantations of the Hawaii Commercial and Sugar Company

Stein, Gertrude (Allegheny, Pennsylvania, February 3, 1874—Neuilly, France, July 27, 1946). Poet, author, and lecturer She was a patron of Picasso, Matisse, Braque, and Juan Gris before they attained fame Her style of writing, stressing sound rather than sense—as her oft-quoted "A rose is a rose is a rose"—created much controversy regarding her sanity. Her more lucid works were *The Autobiography of Alice B Toklas, Three Lives,* and *Wars I Have Seen.*

Stephens, Hubert Durrett (New Albany, Mississippi, July 2, 1875—New Albany, Mississippi, March 14, 1946) Politician and lawyer. He served two consecutive terms in the Senate, then was defeated by Bilbo for reelection He had been a member of the House of Representatives, from 1911–1921, and endorsed the policies of Woodrow Wilson; a member of the board of directors of the Reconstruction Finance Corporation, and district attorney of New Albany, Mississippi

Sterner, Albert (London, England, March 8, 1863—New York, New York, December 16, 1946). Artist, educator, and lecturer He is best known for his portraits in oil and drawings of many famous persons, one of his most famous works is a portrait of a large group, the Deaver Clinic for Lankenau Hospital, Philadelphia He also did illustrations for several novels and magazines, lectured widely, and wrote magazine articles denouncing modern art His work won many prizes and was exhibited in the United States and Europe.

Stilwell, Gen. Joseph W. (Florida, March 19, 1883—San Francisco, California, October 12, 1946). Commander of American forces in China-Burma-India area, March 1942 to October 1944. He led the twenty-day retreat from the Japanese and then the long fight to defeat the Japanese in Burma. Known as "Vinegar Joe" and "Uncle Joe," he was one of the great heroes of World War II. From March 1, 1946, until his death, he was commander of the Sixth Army.

Stone, Harlan Fiske (Chesterfield, New Hampshire, October 11, 1872—Washington, D.C., April 22, 1946). Jurist and educator. Chief Justice of the Supreme Court, since 1941; Justice, since his appointment by Coolidge in 1924. Liberal; one of the "great dissenters" who established vigorous and well-reasoned minority opinions. Dean of Columbia University School of Law, 1910 to 1923. Attorney General in 1924

Strawn, Silas Hardy (Ottawa, Illinois, December 15, 1866—Palm Beach, Florida, February 4, 1946). Lawyer. He was a senior member of the Chicago law firm of Winston, Strawn and Shaw, director of Montgomery, Ward and Company, the American Creosoting Company, and the executive committee of the First National Bank of Chicago; director and general solicitor of the Chicago and Alton Railroad Formerly he had been president of the Chamber of Commerce of the United States, the American Bar Association, vice president of the International Chamber of Commerce, and special American envoy to China.

Strong, Maj. Gen. George Veazey (Chicago, Illinois, March 4, 1880—Washington, D C, January 10, 1946). As chief of the war plans division of the War Department, from October, 1938 to December, 1940, he was responsible for preparing the country's defenses. From 1942 to February, 1944, he was assistant chief of staff in the Intelligence Division of the War Department.

Summerville, George (Slim) (Albuquerque, New Mexico, 1896—Laguna Beach, California, January 5, 1946). Screen comedian. Portrayed "hick" parts One of the original Keystone Cops of pioneer movie days. He won fame in *All Quiet on the Western Front*, and appeared in many other pictures including *Tobacco Road, Jesse James, 'Way Down East, The Farmer Takes a Wife*, and *Rebecca of Sunnybrook Farm.*

Swettenham, Sir Frank Athelstane (Derbyshire, England, 1850—London, England, June 11, 1946). *British* Resident-General of the Federated Malay States, 1896 to 1901; governor and commander in chief of the Straits Settlements, 1901 to 1904; Chairman of Royal Commission to enquire into the affairs of Mauritius, in 1909, joint director of the Official Press Bureau, 1915–19. His published books include *Malay-English Vocabulary, Malay Sketches*, and *British Malaya*

Talmadge, Eugene (Forsyth, Georgia, September 23, 1884—Atlanta, Georgia, December 21, 1946) Politician and lawyer He had been governor of Georgia from 1933 to 1937 and from 1940 to 1942. He was governor-elect of that state at the time of his death. His plan was "to restore white supremacy" in Georgia by opposing the Negro's right to vote, and other measures.

Tarkington, Booth (Indianapolis, Indiana, July 29, 1869—Indianapolis, Indiana, May 19, 1946). Novelist and playwright Author of the *Penrod* books *The Magnificent Ambersons* and *Alice Adams*, which won him the Pulitzer Prize Many of his writings were adapted to stage, screen, and radio

Taylor, Laurette (Cooney) (New York, New York, April 1, 1884—New York, New York, December 7, 1946). Actress. For more than twenty-five years she appeared on the stage in the United States and England She is best known for her roles as Peg, in *Peg O'My Heart*, and as the mother in *The Glass Menagerie*, which won for her a unanimous vote of the New York Drama Critics' Circle as the best performance of the season.

Thorne, Will (Birmingham, England, October 18, 1857—London, England, January 2, 1946). *British* Labor leader, who was a member of House of Commons for thirty-eight years He founded National Union of General and Municipal Workers.

Tilzer, Harry von (Goshen, Indiana, 1873—New York, New York, January 10, 1946). One of the most popular and prolific writers of the music hall era, whose songs included *Wait Till the Sun Shines, Nellie* and *A Bird in a Gilded Cage.* Composed about 8,000 songs, 2,000 of which were published. He helped originate phrase "Tin Pan Alley."

Trimble, South (Hazel Green, Kentucky, April 13, 1864—Washington, D C., November 23, 1946). Politician He was Clerk of the House of Representatives for twenty-five years, from 1911 to 1918 and from 1930 to 1946. Previously he had served three terms in the House of Representatives and had been Speaker in the House of Representatives of Kentucky.

Trixier, Adrien Pierre (Limoges, France, 1891—Paris, France, February 18, 1946). *French.* Labor leader and statesman. Interior Minister in two De Gaulle governments, he had also been Minister of Labor and Social Questions in the Provisional Government of the French Republic; commissioner of labor and social affairs for the French Committee of National Liberation, in Algiers; chief of the Free French delegation to the United States, assistant director of International Labor Organization.

Tyler, George Crouse (Circleville, Ohio, April 13, 1867—Yonkers, New York, March 13, 1946). Theatrical producer, who managed 350 stage productions during his forty-year career Brought the Irish Players from the Abbey Theater to the United States. Introduced Booth Tarkington as a dramatist by producing his play *Gentleman from Indiana.*

Ubico, Gen. Jorge (Guatemala City, Guatemala, November 10, 1878—New Orleans, Louisiana, June 14, 1946) *Guatemalan.* From 1931 to 1944 he was president of Guatemala He resigned and fled to the United States because of political unrest blamed on "Nazi-Fascist agitation." He was in the service of his country from the age of sixteen as an army officer, relief worker, and politician

Valentine, Lewis Joseph (Brooklyn, New York, March 19, 1882—Brooklyn, New York, December 16, 1946). Police Commissioner of New York City, from 1934 to 1945, who did outstanding work He helped organize the Japanese and Korean police, fire, and prison systems for Gen. MacArthur More recently he was chief investigator for the Election Frauds Bureau of the New York State Attorney General's office.

Vanamee, Grace Davis (North Adams, Massachusetts, September 15, 1876—St. Petersburg, Florida, December 10, 1946) Suffragist, lecturer, writer, and educator She was one of the founders of Women's National Republican Club in New York; chairman of the Republican Women's State Speakers; and president of the Henry Hadley Foundation

Vickery, Vice Admiral Howard L. (Bellevue, Ohio, April 20, 1892—Palm Springs, California, March 21, 1946). Vice chairman of the United States Maritime Commission in World War II. Called "miracle man" of the war. In 1940, when Britain asked American shipyards to build her freighters, Admiral Vickery engaged Henry J. Kaiser to expedite the program.

Villarroel, Lt. Col. Gualberto (See article on BOLIVIA)

Waesche, Admiral Russell Randolph (Thurmont, Maryland, January 6, 1886—Bethesda, Maryland, October 17, 1946). The Coast Guard's first full admiral under whom the Coast Guard increased from 15,000 to 170,000. He was commandant of the Coast Guard from 1936, until he retired, in 1945, after which he was named by President Truman as one of the elder statesmen's organization for national defense, which consisted of the ten top-ranking wartime leaders He was decorated, by Secretary of the Navy Forrestal, with the Distinguished Service Medal

Wagnalls, Mabel. See *Jones, Mabel Wagnalls.*

Walch, Johannes Lodwijk (The Netherlands, 1879—Amsterdam, The Netherlands, December 12, 1946). *Dutch.* Playwright, author, and critic Director of the Amsterdam School of Dramatic Arts Formerly professor of Netherlands literature at the Sorbonne in Paris and president of the Society of Netherlands Literature His produced plays included *Judas Iscariot, Antithesis, The Supreme Law*, and *The Magic Scale*

Walker, James John (New York, New York, June 19, 1881—New York, New York, December 18, 1946) Tammany politician and song writer; called "typical New Yorker." Mayor of New York City, from 1926 until his sudden resignation, September 1, 1932, while under charges which resulted from the investigation ordered by the state Legislature President of Majestic Records Company, until his death Author of song hit, *Will You Love Me in December as You Did in May?*

Wells, Gabriel (Balassa-Gyarmet, Hungary, January 24, 1861—New York, New York, November 6, 1946) *Hungarian-American* Dealer in rare books and manuscripts, benefactor. He gained an international reputation as buyer and seller of rare books and manuscripts; put Henry Sotheran and Company, second oldest book firm in England, on sound financial basis when it was threatened with dissolution, and saved, for France, the house in which Balzac had written some of his works He bound and sold the separate leaves of a defective Gutenberg Bible with an essay by the late Edward A. Newton

Wells, Herbert George (Kent, England, September 21, 1866—London, England, August 13, 1946). *British.* Author and lecturer. His literary works often made use of modern scientific developments and their possible effect upon the future, though he also included sociological, historical, and humorous writings. In 1914, he predicted the atomic bomb, in his novel *The World Set Free. The Outline of History* is his most important work of non-fiction. *Kipps* is regarded as his finest book Others were *The Invisible Man, The War of the Worlds, Tono-Bungay*, and *History of Mr. Polly.* He fought for political, social, and military reforms

Whitaker, Col. John Thompson (Chattanooga, Tennessee, January 25, 1906—Washington, D C., September 11, 1946) Journalist and author. As a war correspondent for The Chicago Daily News and The Washington Star, he covered the Ethiopian War and the Spanish Rebellion. For The Chicago Daily News, he later covered South America. He served in the Office of Strategic Services, from 1942 to 1945. He was the author of *We Cannot*

Escape History, And Fear Came, and *Americas to the South.*

White, Stewart Edward (Grand Rapids, Michigan, March 12, 1873—Berkeley, California, September 18, 1946). Adventurer, author, and authority on birds. In 1913, he mapped German East Africa His *The Blazed Trail* was a best seller, though his semi-historic works such as *The Gray Dawn* and *The Long Rifle* are considered better literature He also wrote *Wild Geese Calling, Old California, Anchors to Windward, The Stars Are Still There,* among others

Whitman, Rear Admiral Ralph (Boston, Massachusetts, April 7, 1880—Danbury, Connecticut, February 3, 1946). Naval officer and civil engineer. Former public works officer of the Third Naval District At one time member of Isthmian Canal Commission and technical adviser to the military governor of Santo Domingo

Williams, Valentine (October 20, 1883—New York, New York, November 20, 1946) *British.* Journalist and author. From 1904 to 1909 he was a Reuter's correspondent in Berlin; then, as Paris correspondent for The London Daily Mail, he covered the Portuguese Revolution of 1910 and the Balkan War of 1913 During World War I he was a captain in the Irish Guards Then at the advice of John Buchan he started writing his successful mystery novels, the first of which was *The Man with the Clubfoot* Others were *The Secret Hand, The Clock Ticks On, The Spider's Touch,* and *The For Prowls*

Wilson, Hugh Robert (Evanston, Illinois, January 29, 1885—Bennington, Vermont, December 28, 1946) Diplomat During his thirty-year career as a United States diplomat he was ambassador to Germany and minister to Switzerland; delegate to many of the League of Nations' disarmament conferences and to the London Naval Conference (of 1930). He also served the United States in Buenos Aires, Vienna, Berne, Tokyo, Lisbon, Havana, and Brussels In 1937, he was Assistant Secretary of State He negotiated a new financial treaty with the Dominican Republic His autobiography was written in two sections *The Education of a Diplomat* and *Diplomat Between Wars*

Wright, Frederick A. (Suffolk, England, February 16, 1869—England, August 2, 1946) *British* Professor of Classics, University of London Responsible for revised edition of *Lempriere's Dictionary* Author of *Girdle of Aphrodite, The Romance Life in the Ancient World, Alexander the Great,* and other important works in the classical field

Yamashita, Lieut Gen Tomoyuki (Shikoku, Japan, 1885—Los Banos, Philippine Islands, February 23, 1946) *Japanese* He was hanged as a war criminal, for having condoned atrocities while he held the position of Commander of the Japanese Army in the Philippine Islands He had successfully defeated the British at the start of World War II, in Malaya and Singapore

Yoldi, Gen Luis M. Orgaz (Born in Spain—Madrid, Spain, January 31, 1946) *Spanish* Army leader and Chief of the General Staff of the Spanish Army Supporter of Monarchist cause, mentioned as leader of rumored transitory government junta In 1943 signed a petition of generals, asking Franco to restore the monarchy Fought on the Nationalist side during the Civil War

Youmans, Vincent (New York, New York, September 27, 1898—Denver, Colorado, April 5, 1946) Song composer and producer of light opera and the musical comedy, *No, No Nannette,* he composed *Tea for Two, Hallelujah, I Want to be Happy,* and the score for the motion picture, *Flying Down to Rio*

Young, James Barclay (Washington, D C, February 14, 1883—Stonington, Connecticut, November 16, 1946) Consular official and diplomat for thirty-four years During the twelve months from July, 1916, until July, 1917, while consul at Fiume, he represented the British, French, Italian, Serbian, Russian, Rumanian, Japanese, Belgian, Montenegrin, and San Marino diplomatic interests

Zaghloul, Safia (Born in Egypt—Cairo, Egypt, Jan 12, 1946). Widow of said Zaghloul Pasha, Egypt's greatest modern Nationalist leader Known as "mother of the Egyptians," willed her home "The House of the Nation" to the government as a museum and natural shrine

NEGROES. The 13,000,000 Negroes of the United States are but a fraction of the earth's 250,000,000 black folk. These Negroids, no more and no less than the Caucasoids and Mongoloids, do not constitute a single nationality, language, or culture. They are citizens and subjects of many nations and empires; they speak French, Bantu, English, and Hausa; and, like every other considerable human grouping, reveal sharp economic, political, social, and cultural diversities.

And yet it is possible to think of Negroids as one of the three large divisions of mankind. Though not a uniform physical type, they are, generally speaking, the darkest in skin color and are concentrated in Africa—especially South of the Sahara, in the Caribbean, Brazil, and in the United States of America. Moreover, as color-consciousness spreads throughout the modern world, Negroids are increasingly the objects of a common attitude; likewise, they themselves increasingly manifest a common attitude toward each other and the rest of mankind. The variations and local contradictions sometimes obscure this general tendency.

What did these people do and what happened to them during 1946? Unfortunately, the sources of information are so uneven and inadequate from most parts of the world that the story of the Negro in the United States looms larger than it deserves. Little news of any sort comes out of the South Pacific. Colonial areas suffer the "iron curtain" of censorship in addition to the scarcity of newspapers, books, and public records. Thus, any summary in large part, must be based on trends and events as seen from the United States. The future historian, in looking back to this year, may note that the most important developments took place outside of America or were otherwise subtle or unnoticed.

War to Peace. The first calendar year since V-J Day brought with it the full force of the transition from war to peace. Tasks of rehabilitation were everywhere Servicemen loaded with new and often bitter experiences returned to their homes. Activities which lay dormant during the great war were resurrected.

Melanesia was one of the few areas inhabited by black folk that was an actual battlefield during the war The native peoples of the Solomons, New Caledonia, and New Guinea whose homes and lands were destroyed by the rude thrust of "civilized warfare" found the great and victorious nations usually generous in rebuilding their towns and villages. It was more difficult to wipe out some of the non-material effects of the contacts with soldiers, sailors, and marines from other parts of the world A correspondent of an American Negro newspaper remarked that a typical South Sea islander looked like "a Harlem Negro who needed a haircut and a suit of clothes" Others reported that the dark-skinned peoples of the Pacific would never again be the same. They had seen white men in defeat as well as in victory, retreating in mad disorder as well as advancing in confidence and glory. The myth of white invincibility was permanently shattered by events and enemy propaganda. Moreover, this new skepticism was deepened when Negro soldiers from the United States were observed performing duties hitherto associated exclusively with white men. The net impact of the war upon native cultures is worthy of serious study.

North and East Africa were other fields of battle of the great war. The sandy Italian colonies, testaments to Mussolini's dreams of empire, seemed destined to be assigned as trusteeships to the United Nations Ethiopia found herself blessed by a good food crop but cursed by shortages of supplies and trained personnel in medicine, education, and engineering Negroes in the United States discussed the appeals of Emperor Haile Selassie for assistance; however, only a few trained men actually made the trip over. Ethiopia made strenuous efforts to "re-annex" Eritrea and that part of Somaliland which bars her access to the sea. These negotiations are still in progress. Newspapers throughout Africa applauded Egypt and the Anglo-Egyptian Sudan when they secured the promise that British troops would be soon withdrawn from their soil.

Liberia, though it did not suffer the clash of arms on its territory, did serve as a major base for American forces during the war. Most of the troops here were American Negroes who have since returned to their own country. The United States commissions subsequently sent over were commended by the Liberian President Tubman for their work in sanitation, nutrition, and public works, but condemned whenever any excursions were made into politics.

All areas were faced by the return of millions of veterans. Some of the colonial governments felt uneasy lest these warriors bring back with their guns and uniforms new ideas from the outside world. This seemed to have been true of all areas in which minorities were subordinated, for similar opinions were expressed in the American South. The black soldier was conscious of his contributions to victory in the war against the Axis with its master race ideology. A growing opinion all over the world shared this view. Slogans such as the "Atlantic Charter" and the "Four Freedoms" strengthened this drive for human rights and justice.

These veterans had given a good account of themselves as fighting men. The Fiji islanders had been termed the best jungle fighters to oppose the Japanese enemy. British East African troops were considered first rate by all who saw them in action. African troops from French territories for a while did most of whatever fighting the "Free" or "Fighting French" did Long accounts were being prepared of the achievements of American Negroes during the war. Already it was known that more than a million Negro-Americans served in the Army, Navy, Coast Guard, and Marines. They were usually segregated into Negro service units. The fight against "military jim crow" continued inside and outside the armed forces through the war. Despite this, the accomplishments of the Tan Yanks, as they were popularly known, include three presidential citations for combat operations, a highly praised air fighter group, and a long list of individual heroes beginning with Doric Miller, the untrained messman who won the title of "First American hero of World War II" when he shot down four enemy planes during the Japanese raid on Pearl Harbor. The Ninety-second Division—Negro unit commanded by white officers—was criticized for a poor showing, while polls conducted by the Army itself revealed that white soldiers who fought alongside Negroes admired their comrades as soldiers and men. During the course of the war the Navy officially abandoned its policy of racial segregation. The Army made some improvements as set forth in a highly publicized "Gillem Report" but held fast to the essentials of its "Negro policy."

When Negro enlistments for the postwar Army reached 17 percent of the total, although Negroes are but 10 percent of the total population, the Army suspended further Negro enlistment and drafting. Suits and protests against such action resulted in relaxing the prohibition. Stories of the popularity of Negro GIs with German frauleins were advanced by the Negro press as the real reason for the systematic concentration of Negro troops in restricted areas of the overseas occupation. A tour of the European theatre of operation by a commission of Negro Newspaper Publishers Association, at the invitation of the War Department, resulted in strong recommendations for implementing the improvements set forth in the "Gillem Report."

But the main body of Negro servicemen returned to civilian life. The feeling was widespread that these veterans would insist upon returning to a better life than they had left behind. These new demands, fancied or real, were met in some quarters by concessions: special efforts were made to ensure that all provisions for veterans generally, were extended to Negro veterans. Many Negro and interracial groups set up counseling services. The American Veterans Committee boldly denounced discrimination against any veterans. Negro veterans, in addition to joining such liberal groups as AVC, organized themselves into the United Negro and Allied Veterans. The colonial governments in Africa were more solicitous of veterans than of any other groups.

In certain other quarters—particularly the American South—efforts were made to put the Negro Veterans (and all other Negroes who had equalitarian ideas) "back into their places." A wave of violence broke out with the resurrection of the Ku Klux Klan and the organizing of similar groups, such as the Columbians of Atlanta, Georgia. Of the series of floggings and lynchings, the most notorious were the gouging out of the eyes of Isaac Woodard by a police officer of Batesburg, South Carolina, the lynching of two veterans and their wives at Monroe, Georgia, and a serious clash at Columbia, Tennessee, which was precipitated by the defense on the part of a Negro seaman of his mother from alleged insult and assault. Most remarkable of all was the nation-wide indignation at such outrages and the mobilizing of forces of law and public opinion which broke the teeth of what looked like a campaign of anti-minority terror

President Truman appointed a Civil Rights Committee, two of whom were Negroes, which would, after study, recommend federal laws that would enable the Federal Government to proceed against such violations of civil liberty.

Economic Life. The strangling of the Fair Employment Practices Committee appeared to be the outstanding event in the economic life of the Negro masses. Led by A. Philip Randolph, they threatened a march on the nation's capital to demand a fair share of jobs in war industries. This scheduled march was called off when President Roosevelt issued Executive Order #8802 creating the Fair Employment Practices Committee. Thus was established the principle that the state should guarantee equality of job opportunity without regard to race, creed, or ancestry. The Committee was notably successful in getting a fair chance for employment opportunities for Negroes, Jews, and persons of Mexican or European ancestry, except where strongly entrenched interests such as the railroad operators and unions combined to defy an agency that had no powers of enforcing its directives.

Realizing the temporary nature of the Committee, strenuous efforts were made to get Congress to enact a fair employment practice law. Southern senators not only killed all such bills through filibustering, but finally succeeded in laying the temporary committee itself to rest by stripping it of necessary funds for its operation. These defeats on the national scene were softened by success in setting up state committees for fair employment in New York, New Jersey, Massachusetts, and Indiana.

There was a conference on Negro Business called by the United States Department of Commerce. The shadow cast by the mechanical cotton picker over the future of agricultural labor in the South may have been one of the reasons that less than one quarter of the one million Negro migrants of the war years went back "where they came

RKO Pathé

U.S. Signal Corps

THE PHILIPPINES

Above. Watching the Philippine flag replace the American flag at Manila, July 4, 1946. *Below:* General Masaharu Homma explains a point to the court stenographer at the war crimes trial, Commissioner's House, Manila

HIGHLIGHTS IN A BANNER SPORTS YEAR

Above· Arnold Tucker, Army quarterback, intercepts a Notre Dame pass on his own 10-yard line and carries the ball to his own 42-yard line during the nation's outstanding football battle that ended in a scoreless tie (*Acme*). *Center*: World Series. St. Louis Cardinals begin their victory celebration over the Boston Red Sox (*Press Association, Inc.*). *Below*: Tony Zale, who retained his middleweight title, floors Rocky Graziano in the first round of their championship bout at the Yankee Stadium, New York (*Acme*).

Wide World Photo

Homestead, Pennsylvania Pickets burn their strike banners as CIO union wins 18½-cent hourly wage increase.

Wide World Photo

New York, New York All over the United States lines like this spring up as meat is withdrawn from market after recontrol

Wide World Photo

Philadelphia, Pennsylvania Melee caused when 3,000 parading pickets smash through 500-man police line at strike-bound General Electric plant.

from." The movement had been toward the Great Lakes and coasts where the ships and planes were built and the naval installations located. About 250,000 new migrants settled on the Pacific Coast. Their foothold in these new locations was often precarious; yet, during 1946, there was little inclination to retreat.

The integration of the Negro in the organized labor movement was noticeable in the number of black faces seen in the picket lines of the great strikes In contrast to the situation after World War I, there were virtually no Negroes who served as "scabs" or strike breakers. Both the American Federation of Labor and the Congress of Industrial Organization resolved to organize Negro and white labor in the South. This much discussed "Operations Dixie" got off to a slow start.

The islands of the West Indies which had suffered so much from submarine warfare and shortage of shipping during the war gradually recovered. The Caribbean Conference, held in St. Thomas of the Virgin Islands, February 21 to March 31, considered plans for the economic, political, and cultural development of the area as a whole.

The Council on African Affairs of New York City gave wide publicity to the news of a near-famine among the native people in the Union of South Africa.

Politics. War and economics are so closely interwoven with political affairs that the same issues frequently express themselves in all of these fields at the same time

Negroes generally looked askance at the further liquidation of the New Deal under the Truman administration. The President regained some of his standing with Negro voters through the appointment of William H. Hastie, brilliant Harvard-trained lawyer and former Federal judge, as Governor of the Virgin Islands, and R. O'Hara Lanier, the former Dean of Hampton Institute, as American Minister to Liberia Both Hastie and Lanier assumed their duties in the spring of the year.

In the fall of the year, the only two Negroes in the national Congress, Adam Clayton Powell, Jr., of New York City, and William L Dawson of Chicago—both Democrats—withstood the Republican landslide to retain their seats. Some forty-odd other Negro candidates were elected to major political offices throughout the United States.

The main effort of Negroes and their allies in politics for the past few years has been to unlock the huge vote in the Southern states which is barred by poll-tax, the "white primary," not to mention intimidation on the part of hoodlum gangs, and inertia on the part of the potential voters themselves. The Supreme Court helped along this effort by deciding that the "white primary" is unconstitutional. Immediately, various Southern states began to devise new methods of getting around the decision

Despite these difficulties, Southern Negroes continued to register and more of them actually voted in 1946 than in any election since the Populist Movement in the 1890's Moreover, they joined with other public-spirited groups throughout the nation in a campaign to "oust Talmadge and Bilbo." When Eugene Talmadge, Governor-elect of Georgia, died December 21, religious-minded persons spoke of his death as "heavenly retribution." After a public hearing staged in Mississippi, the Senate Committee on Privileges and Elections decided that it was not Senator Bilbo, but the election system that kept Negroes from voting in Mississippi. The Negro press decribed the Committee's report as a "whitewash." A second senatorial investigation of Senator Bilbo for fitness for office brought charges against him of receiving gifts from persons he had admittedly helped to secure government contracts.

The meeting of the United Nations in New York was heartening for Negroes as well as for others throughout the world Haiti, Liberia, and Ethiopia —sometimes described as Negro nations—were well represented. Of the Negroes on the staff of the United Nations Permanent Secretariat, Dr. Ralph Bunche, Director of the Division of Trusteeships, held the outstanding position.

Issues which directly affected the welfare of Negroid peoples were among those that came before the Trusteeship Council and the Economic and Social Council. Dr Jan Christiaan Smuts, Premier of South Africa, attempted to secure permission from the UN for the annexation by the Union of South Africa of the mandated territory of Southwest Africa. Dr. A. B. Xuma, President-General of the African National Congress, came to New York, and threw the weight of his influence against the proposed annexation. The delegation from India, led by Mrs. Vijaya Lakshmi Pandit, supported the Africans in opposing annexation and was, in turn, supported by the Africans in resisting the efforts of the Union government to impose restrictions upon the 250,000 Indian nationals living in South Africa. Premier Smuts was thus twice defeated.

The National Negro Congress submitted a petition to the UN's Economic and Social Council protesting denial of full citizenship rights to American Negroes. The UN, though moving cautiously to define its jurisdiction and procedures, seemed to be advancing toward a position whereby the rights of minorities are its legitimate concern.

An affiliate of UN, United Nations Educational, Scientific, and Cultural Organization, advanced its work with the aid of Charles S Johnson, a member of the American delegation to Paris. Dr. Johnson was one of the busiest Negro leaders of the year. In addition to his work with UNESCO, he was one of twenty American educators who advised General MacArthur in Tokio on plans for educating and re-educating the Japanese people In October, Dr. Johnson was elected the first Negro President of Fisk University.

In Haiti, Dumarsais Estime was made President. This followed the revolution which threw out Elie Lescot and subsequent rule by a military junta.

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from." The movement had been toward the Great Lakes and coasts where the ships and planes were built and the naval installations located. About 250,000 new migrants settled on the Pacific Coast. Their foothold in these new locations was often precarious, yet, during 1946, there was little inclination to retreat.

The integration of the Negro in the organized labor movement was noticeable in the number of black faces seen in the picket lines of the great strikes In contrast to the situation after World War I, there were virtually no Negroes who served as "scabs" or strike breakers. Both the American Federation of Labor and the Congress of Industrial Organization resolved to organize Negro and white labor in the South. This much discussed "Operations Dixie" got off to a slow start.

The islands of the West Indies which had suffered so much from submarine warfare and shortage of shipping during the war gradually recovered. The Caribbean Conference, held in St. Thomas of the Virgin Islands, February 21 to March 31, considered plans for the economic, political, and cultural development of the area as a whole.

The Council on African Affairs of New York City gave wide publicity to the news of a near-famine among the native people in the Union of South Africa.

Politics. War and economics are so closely interwoven with political affairs that the same issues frequently express themselves in all of these fields at the same time.

Negroes generally looked askance at the further liquidation of the New Deal under the Truman administration. The President regained some of his standing with Negro voters through the appointment of William H. Hastie, brilliant Harvard-trained lawyer and former Federal judge, as Governor of the Virgin Islands, and R. O'Hara Lanier, the former Dean of Hampton Institute, as American Minister to Liberia Both Hastie and Lanier assumed their duties in the spring of the year.

In the fall of the year, the only two Negroes in the national Congress, Adam Clayton Powell, Jr., of New York City, and William L Dawson of Chicago—both Democrats—withstood the Republican landslide to retain their seats. Some forty-odd other Negro candidates were elected to major political offices throughout the United States.

The main effort of Negroes and their allies in politics for the past few years has been to unlock the huge vote in the Southern states which is barred by poll-tax, the "white primary," not to mention intimidation on the part of hoodlum gangs, and inertia on the part of the potential voters themselves. The Supreme Court helped along this effort by deciding that the "white primary" is unconstitutional. Immediately, various Southern states began to devise new methods of getting around the decision.

Despite these difficulties, Southern Negroes continued to register and more of them actually voted in 1946 than in any election since the Populist Movement in the 1890's Moreover, they joined with other public-spirited groups throughout the nation in a campaign to "oust Talmadge and Bilbo." When Eugene Talmadge, Governor-elect of Georgia, died December 21, religious-minded persons spoke of his death as "heavenly retribution." After a public hearing staged in Mississippi, the Senate Committee on Privileges and Elections decided that it was not Senator Bilbo, but the election system that kept Negroes from voting in Mississippi. The Negro press decribed the Committee's report as a "whitewash." A second senatorial investigation of Senator Bilbo for fitness for office brought charges against him of receiving gifts from persons he had admittedly helped to secure government contracts.

The meeting of the United Nations in New York was heartening for Negroes as well as for others throughout the world. Haiti, Liberia, and Ethiopia —sometimes described as Negro nations—were well represented Of the Negroes on the staff of the United Nations Permanent Secretariat, Dr. Ralph Bunche, Director of the Division of Trusteeships, held the outstanding position.

Issues which directly affected the welfare of Negroid peoples were among those that came before the Trusteeship Council and the Economic and Social Council. Dr. Jan Christiaan Smuts, Premier of South Africa, attempted to secure permission from the UN for the annexation by the Union of South Africa of the mandated territory of Southwest Africa Dr. A. B. Xuma, President-General of the African National Congress, came to New York, and threw the weight of his influence against the proposed annexation. The delegation from India, led by Mrs. Vijaya Lakshmi Pandit, supported the Africans in opposing annexation and was, in turn, supported by the Africans in resisting the efforts of the Union government to impose restrictions upon the 250,000 Indian nationals living in South Africa. Premier Smuts was thus twice defeated.

The National Negro Congress submitted a petition to the UN's Economic and Social Council protesting denial of full citizenship rights to American Negroes. The UN, though moving cautiously to define its jurisdiction and procedures, seemed to be advancing toward a position whereby the rights of minorities are its legitimate concern.

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delphia. All these groups and numerous civic unity and interracial committees denounced racial discrimination and pledged themselves to fight for justice and equality.

The Federal Council of Churches of Christ in America continued its campaigns for better race relations among religious institutions. But it was the Congregational churches, in their nation-wide conference, that repented the "sin" of racial segregation and resolved to purge themselves. The African Methodist Episcopal Zion Church held its Sesqui-centennial in New York City.

All schools and colleges reported record enrollments. Fifty-two Negro scholars are now on the faculties of "white" colleges in the North and West, whereas five years ago there were less than five. Abram Harris, to the University of Chicago and Ira De A. Reid, to New York University, were notable apopintments. A report released by the War Department revealed that twelve Negro scientists had worked on the atomic bomb projects. The Julius Rosenwald Fund and the General Education Board were among philanthropic foundations that continued their aid to Negro education. The Negro College Fund received more than $905,000 in contributions from the public. The Conference of Presidents of Negro Land Grant Colleges called on President Truman to petition additional federal aid to education. Further plans were announced for universities to be established in British West Africa and the British West Indies.

"Father" Divine, during the summer, announced his marriage to blond and reputedly wealthy Edna Rose Ritchings of Vancouver, Canada

In boxing, Joe Louis continued as heavyweight king by disposing of Billy Conn and Tami Mauriello. Jack Johnson, the first Negro to be heavyweight champion and considered by some as one of the greatest pugilists of all time, met his death in an automobile accident. Ray "Sugar" Robinson, for years "the uncrowned welterweight champion," actually won the title on December 20.

Levi Jackson of Yale was the Negro football sensation of the season, outshining Claude "Buddy" Young of the University of Illinois Morgan College won the Colored Inter-collegiate Athletic Association football title "Jackie" Robinson, owned by the Brooklyn Dodgers, was a star of the pennant-winning Montreal Royals. His batting average was .351.

Cultural Events. Many honors, mainly of a symbolic character, came to Negroes during the year. In a precedent-shattering move, Mrs. Emma Clement was selected as "American Mother of 1946." Alain Locke was the first Negro to be elected President of the American Association of Adult Education. The bust of Booker T. Washington, done by Richmond Barthe, was placed in New York University's Hall of Fame. Also, a fifty-cent Booker T. Washington Memorial coin made its appearance.

The Spingarn Medal for achievement went to Thurgood Marshall. The names of twelve Negroes and six white persons were added to the Honor Roll of Race Relations, as the result of the nation-wide poll conducted by The New York Public Library, and announced during Negro History Week. Channing Tobias was made Executive Director of the Phelps-Stokes Fund.

On Broadway, *St. Louis Woman,* written by Arna Bontemps and Countee Cullen, had a long run. Unfortunately, Countee Cullen, more famous as a poet than as a novelist or playwright, died before the show opened. Negro actors were in many plays such as *Anna Lucasta,* which closed after more than three years, and *Showboat,* as well as in plays such as *Deep Are the Roots* and *On Whitman Avenue,* which treated the Negro problem. Canada Lee, who was one of the producers of the latter play, took a "white-face" role in *The Duchess of Malfi* Camilla Williams was the leading lady in Puccini's *Madame Butterfly.* The African Academy of Arts and Research presented its two-day pageant at Carnegie Hall.

Hollywood was criticized for continued stereotyping of Negro characters. The National Association for the Advancement of Colored People disapproved and the National Negro Congress picketed Walt Disney's *Song of the South,* based on the Uncle Remus tales. Lena Horne and her producers were praised for her glamourous and non-servant roles. The Daughters of the American Revolution, in the face of wide-spread censure, continued their "white artists only" clause in the rental contracts for Constitution Hall in Washington, D.C. The King Cole Trio of radio and stage was voted by several popular music magazines as having "contributed most" to the advancement of music during the year. Duke Ellington again enjoyed crowded houses at his Carneigie Hall concerts.

Books by and about the Negro continued to be written and read in increasing volume but the best-selling book by any Negro author, Frank Yerby's *Foxes of Harrow,* was more about romance in the old South than the Negro Shirley Graham won the $6,500 prize presented by Julian Messner Company for *There Was Once A Slave· The Heroic Story of Frederick Douglass* Richard Wright was royally feted during his visit to Europe. Other books about the Negro by Negro authors were Ann Petry's *The Street* and George Henderson's *Jule.* Books about the Negro by white authors include Buell Gallagher's *Color and Conscience* and Margaret Halsey's *Color Blind* The George Washington Carver Prize, $2,400, of Doubleday & Company was not won by a Negro writer but by Fannie Cook, with her novel, *Mrs. Palmer's Honey.*

Negro magazines and newspapers continued their wide circulation, led by *Ebony,* a *Life*-type monthly, that claimed a circulation of 400,000. The valuable Henry P. Slaughter Collection of Negro Literature went to Atlanta University, which now has one of the nation's eight outstanding libraries on the Negro.

Although the high faith for a better world receded from the peak of the later war years, actual progress seemed to be measurable in most fields.

L. D. REDDICK.

NEPAL. A small independent kingdom between Tibet and India, on the southern slope of the Himalayas. The territory includes Mount Everest (29,002 feet). Area, 54,000 square miles. Capital, Katmandu. The government is a military aristocracy based on birth. The king is Tribhubana Bir Bikram, who succeeded his father on December 11, 1911. All power is in the hands of the Prime Minister, a member of the ruling family. This was Gen. Sir Padma Shumshere Jung Bahadur Rana, who succeeded his uncle, November 29, 1945.

The population is estimated at 5,600,000 of whom the majority are Ghurkas, descended from invaders who overran the country in the latter half of the eighteenth century. Ghurka troops fought with the Allies in World War II. Hinduism is gradually replacing Buddhism as the dominant religion The economy of Nepal depends heavily upon agriculture and animal production. In spite of its mountainous character it is well provided with fertile valleys as well as valuable forests. The prin-

cipal exports are rice, jute, hides, cattle, lumber, oilseeds, and ghee. It is necessary to import textile and metal products, as well as sugar and salt.

NETHERLANDS. A constitutional monarchy of northwestern Europe. Capital, Amsterdam; seat of the Government, The Hague. Sovereign, Queen Wilhelmina, who succeeded to the throne Nov. 23, 1890, and was crowned Sept. 6, 1898. The country was invaded by German military forces on May 10, 1940, and remained for the most part under German occupation until May 4, 1945.

Area and Population. The area, including water belonging to municipal territories, is 15,764 square miles. The population on April 1, 1946, was estimated at 9,319,862. About 94 percent of the people dwell in communities of 2,000 or more. Estimated populations of the chief cities on March 1, 1946, were: Amsterdam, 780,070; Rotterdam, 618,793; The Hague ('s Gravenhage), 482,840; Utrecht, 176,394; Haarlem, 150,773; Groningen, 129,372; Eindhoven, 131,188; Tilburg, 95,142; Nijmegen, 94,102; Enschede, 97,374; Arnhem, 91,928, Leiden, 83,836. The central section of Rotterdam was completely destroyed by German air attacks on May 14, 1940.

Economic Conditions. Substantial progress was made during the year toward restoration of Holland's war-torn economy. According to an account given in late November by the Netherlands Ambassador to the United States, Dr. Alexander Loudon, 60 to 70 percent of the country's former producing capacity had been reached at that time. Dr. Loudon also declared that Holland's merchant marine—of which 51 percent was lost in the war —would be back at 75 percent of prewar strength by the end of 1946 Dutch airlines were flying a daily mileage three times as great as before the war. Trains were running on schedule again. Of 220 railroad bridges destroyed, all but nineteen were back in service.

Dispatches from American correspondents in Holland added up to a picture of hard work, frugal living, and measured confidence in the future. To prevent inflation, protect the guilder, and keep the country's credit good, Minister of Finance Pieter Lieftinck carried through a hard-fisted financial policy which, despite some grumbling, found public approval and led to his continuation in office in the July Cabinet shift. Among the drastic measures initiated by Mr. Lieftinck and approved by Parliament were a capital increment tax of 50 to 70 percent on normal, and 90 percent on abnormal war profits and a capital levy ranging from 5 to 25 percent.

To help meet the country's balance of payments deficit both in 1946 and in later years—Holland's trade accounts were not expected to be fully balanced in less than four years—the Finance Minister resorted to extensive borrowing in the United States, Canada, and the United Kingdom. A $200,000,000 loan, granted in April by the Export-Import Bank, went a long way toward financing urgent imports from the United States, which were expected to amount to from $300,000,000 to $400,000,000 in 1946. Nevertheless, on Oct. 30, the Netherlands applied to the World Bank for loans totaling $500,000,000.

Complaints that Allied occupation policies in Germany were cutting off the Netherlands from its traditional hinterland were frequently made by Dutch officials and economic circles. Before the war, no other country had economic links with Germany as intimate and far-reaching as Holland, but in 1946 trade between the two countries was practically nil. The Dutch were particularly aroused by what they termed the British "stranglehold" on Germany and charged that Britain was taking advantage of her military control in northwestern Germany to build up British trade at the expense of the Dutch.

Production. Agriculture, manufacturing, commerce, and mining are the principal industries. Yields of the chief crops in 1945 (in metric tons) were: wheat, 217,843; barley, 92,744; rye, 206,162; oats, 252,345; potatoes, 2,017,756; beet sugar, 449,242; flax, 40,763. Livestock (1942): 2,440,553 cattle, 491,000 swine, 337,177 horses, and 574,497 sheep. The estimated 1940 mineral production was (in metric tons): coal, 13,000,000; pig iron, 300,000; copper, 1,000, zinc (smelter) in 1939, 20,500. The 1939 output of rayon and staple fiber was about 11,000 metric tons; wood and straw pulp, 108,000; butter, 108,400; cheese, 120,600; margarine, 71,000; shipping tonnage launched, 117,000. Bricks, clothing, boots and shoes, engines, boilers, machinery, cotton and linen fabrics, alcoholic beverages, tobacco products, are other leading manufactures.

An official survey of cattle herds made in July 1945 showed an over-all loss in cattle stock of 15.4 percent, but of 21.9 percent in milch cows, as compared with 1940. Cattle numbered 2,277,105, whereof 1,188,212 were cows. Of the prewar stock of 1,553,413 pigs, only 768,733 were left. The country's poultry flock was seriously reduced, from 30,000,000 to about 4,000,000. Coal production, in Limburg province showed a marked upward trend in the latter half of 1945; a daily output of 26,000 tons was reached in November.

Foreign Trade. Between the period of August 1945 to May 1946, exports totaled 1,384,210 metric tons and imports 7,786,290 metric tons. Exports for 1946 were estimated at 5,300,000 metric tons, valued at 730,000,000 guilders.

Government. The Constitution of 1814, with its various amendments, vests executive power exclusively in the sovereign while legislative authority rests co-jointly in the sovereign and the States-General (parliament). The States-General consisted of an upper chamber of 50 members, chosen by elected representative bodies in the several provinces for terms of six years, and of a lower chamber of 100 members elected for four years by general adult suffrage. In practice the Cabinet was responsible to the States-General and the Premier was normally chosen by the sovereign from a political group commanding a parliamentary majority. The Premier proposed the members of his ministry to the sovereign. After the liberation of the Netherlands, constitutional conditions, which had been suspended by the invader, were gradually restored. On June 23, 1945, Prof. W. Schermerhorn was appointed President of the Council of Ministers.

Events. In the early part of the year, the restoration of political normalcy in the Netherlands was completed with the holding of the first general election since 1937. In preparation of this event, in February six minor political groups joined forces with the Social-Democratic party to form a new Labor party. Among the groups participating in the merger was also Premier Willem Schermerhorn's Dutch People's Movement.

Through this amalgamation, the political situation in Holland was greatly simplified and at the same time stabilized. For, in the prewar period, the task of forming a democratic government had been rendered almost impossible at times by the multiplicity of political parties, numbering up to fifty. Most of the smaller groups and "splinters"

made no attempt at revival after the war, but enough of them did so to invite confusion at the forthcoming elections. Even after the seven-party fusion on the Left, eleven different groups made a bid at the poll, but only six of them were important

The election campaign was dominated by two issues: the future of Holland's rich colonial empire in the East Indies; and the question of government control over the economic life of the nation. On both issues, an informal compromise was reached, before the election, between the two dominant political groups; i.e. the Labor party and the Catholics. The latter accepted the moderate solution for Indonesia proposed by the Laborite Schermerhorn Cabinet, while the former agreed to put off, or soften, its nationalization plans.

The Elections. The general election for the Lower House of the States-General was held on May 17. Of more than five million eligible voters—some 120,000 former Nazis had been disenfranchised—4,750,000 went to the polls. As had been generally expected, the middle-of-the-road Catholic party polled the largest vote, 1,466,510, and took first place in the House with 32 seats; the Labor party, with 1,347,664 votes, won 29 seats; the Communists obtained 502,935 ballots and 10 seats; and the Liberals (Freedom party), 305,935 votes and six seats. A total of 1,121,153 ballots were cast for the four Protestant parties; of these the Calvinists took 13 seats in the House, and the Christian-Historical Union, 8.

On May 29, elections to the provincial assemblies were held; these were of almost equal importance, in so far as their outcome determined the composition of the Upper House of parliament. The 50 seats of that Chamber were distributed as follows: Catholics, 17; Labor party, 14; Calvinists, 7; Christian-Historians, 5; Communists, 4; Liberals, 3. In this second poll, 4,695,043 voters cast their ballots.

A third electoral round took place on July 26, when municipal councillors were chosen in Holland's largest cities. In these elections, the Left triumphed over the Catholics. In Rotterdam and in the Hague, the Labor party led the field with 37 and 30.7 percent respectively of the vote cast; in Amsterdam, the Communists came out on top with 32 percent of the vote, followed by the Labor party with 31 percent.

A New Cabinet Takes Over. Immediately following the general election to the Lower House, the Provisional Government of Premier Schermerhorn stepped down on May 18. To form a new Cabinet on a majority basis proved an arduous task for Queen Wilhelmina. An attempt to base the government on a coalition of Catholics and Protestants, leaving the Labor party in the opposition, failed; nor could the Left muster a majority, even if the Labor party had been inclined to cooperate with the Communists, which it was not. Thus the only possible solution of the crisis was a continuation, in one form or another, of the former coalition between the Catholic and Labor parties.

On May 27, Queen Wilhelmina asked the leader of the Catholic party, Dr. Louis Joseph Maria Beel, who had been Minister of Interior in the Schermerhorn Cabinet, to form such a government, but it was not until July 2 that Beel succeeded in the task given him The Cabinet he presented to the Queen was composed of five Catholics and five Labor party members, with three portfolios left to independent technicians. Seven Ministers were retained from the outgoing Cabinet in particular: Dr Beel, Premier and Interior Minister; Prof. Pieter Lieftinck (Labor), Minister of Finance; and Willem Drees (Labor), Minister of Social Affairs. The Foreign Ministry was filled by a Catholic career diplomat, C. G. W. H. Baron van Boetzelaer van Oosterhout, but his predecessor, Eelco N. van Kleffens, was retained as Minister Without Portfolio and Netherlands delegate to the United Nations Security Council.

Perhaps the most important appointment was that of Johannes A. Jonkman, a Laborite lawyer, as Minister of Colonies; he had long been regarded as a warm friend of the Indonesian peoples. The significance of his appointment was further underlined by the selection of Professor Schermerhorn, the outgoing Premier, as Commissioner-General for the Netherlands Indies. Through these nominations, Premier Beel clearly indicated that he intended to continue the conciliatory Indonesian policy of the preceding government, in spite of the pressure for "firmness" emanating from the ranks of his own party and certain Protestant groups. The rift within the Catholic party caused by divergent opinions on this crucial issue deepened in the following months and led to the resignation, on Nov. 16, of Dr. Johannes A. Ringers, Catholic Minister of Public Works and Reconstruction. Dr. Ringers resigned in emphatic protest against the draft agreement for a settlement of the Dutch-Indonesian dispute, which was reached on Nov. 12 (for details, see the article on the Netherlands East Indies). Otherwise, the Beel Cabinet remained in office unchanged up to the end of the year.

Continuation of the Purge. Both the two principal Dutch quislings, who had been condemned to death late in 1945 were executed by firing-squads, early in 1946. The first to die was Max Blokzijl, on March 16; Anton A. Mussert was executed on May 7. Each of the two traitors had appealed first to the Cassation Court, and then to the Queen, for clemency. The pleas were rejected, not without some hesitation, amidst a lively public controversy about the re-application of the death penalty after almost a century of disuse in the Netherlands.

With the advent of the Beel Government, that part of public opinion which advocated leniency toward the smaller fry of Nazis and collaborators gained the upper hand. "The time has now come to exercise compassion," Mr Beel told Parliament shortly after his induction as Premier. He announced that he hoped to reduce the number of political prisoners from about 70,000 to 25,000 before the end of the year It was understood that those earmarked for long detention would eventually be shipped to a North Sea island, or to a place in the colonies.

Claims on Germany. With little hope of recovering from Germany even a fraction of the $14,000,000,000 reparations bill computed by Dutch economic and financial experts, the new Government sought other ways and means to obtain at least partial compensation for the damage done by the Nazis. At a special Cabinet meeting held on Oct. 21 a number of frontier changes which had been widely discussed in the press were considered. Throughout the debate, both government officials and the press took great care to disclaim any annexationist designs, using instead the term "frontier corrections"

On Nov. 1 the Netherlands Government, in a simultaneous demarche with Belgium and Luxembourg, submitted to the Big Four powers an "urgent request" that it be "associated from the beginning" in the making of a peace settlement with Germany. Four days later, the Netherlands ambassadors in Washington, London, Moscow, and Paris filed formal claims on Germany.

The territorial revisions sought by the Dutch turned out to be even more modest than had generally been expected. They were designed primarily to straighten out Holland's strategic border by eliminating a number of German salients or "bulges." Only 700 square miles, with a population of 119,000, were involved in the desired transfers; the inhabitants would be permitted to remain and become Netherlands citizens, unless they had criminal records. The proposed changes would affect rural areas only, with the new boundary line running slightly west of the German cities of Aachen, Geilenkirchen, Heinsberg, Geldern, Goch, Cleve, Emmerich, Nordhorn, and Emden. The East Frisian island of Borkum was also requested, along with a number of economic concessions.

JOACHIM JOESTEN.

NETHERLANDS EAST INDIES. A group of large and small islands in the East Indies forming the main overseas territories of the Netherlands Kingdom, conquered and occupied by Japanese armed forces from 1942 until the surrender of Japan in September, 1945. Capital, Batavia, on the island of Java.

Area and Population. The area, population at the 1930 census, and population density of the island groups are shown in the accompanying table.

Group of islands	*Sq mi*	*Population*	*Density**
Java and Madoera	51,032	41,718,364	817
Sumatra	164,118	7,677,826	47
Riouw-Lingga	12,235	298,225	24
Bangka	4,611	205,363	45
Billiton	1,866	73,429	39
Borneo			
West district	56,664	802,447	14
South and East districts	151,621	1,366,214	9
Island of Celebes			
Celebes	38,786	3,093,251	80
Manado	34,200	1,138,655	33
Moluccas & New Guinea	191,682	893,400	5
Timor Archipelago	24,449	1,657,376	68
Bali and Lombok	3,973	1,802,683	454
Netherlands East Indies	735,268	60,727,233	83

* Density per square mile.

The estimated population in 1940 was 70,476,000, including 68,832,000 natives. Java and Madoera had 48,416,000 inhabitants, the Outer Provinces, 22,060,000. There were about 250,000 persons classed as Europeans (many had some native blood), including 220,000 Dutch Chinese numbered about 1,200,000, other alien Asiatics (mostly Hindus and Arabs), 115,000. Over 92 percent of the population is rural. Chief cities (with latest available populations): Batavia 606,800, Soerabaja (Surabaya) 390,700, Semarang 217,796, Bandoeng 166,815, Soerakarta 165,484, Djokjakarta (Jogjakarta) 136,649, Palembang 109,069.

Education and Religion. According to the 1930 census, there were 4,296,579 literate persons, of whom 400,877 were able to write Dutch. In 1940 there were 17,718 village schools with 1,896,374 pupils, 3,607 other primary schools (public and private) with 467,076 pupils, 41 secondary schools with 8,686 pupils, and various vocational and special schools. Higher education was given in the Technical College, Bandoeng, and in colleges of law, medicine, agriculture, science, literature, and philosophy at Batavia. About 20 per cent of all pupils attended missionary schools.

About 90 per cent of the natives are nominally Mohammedans and there are about 2,500,000 Christians and 1,000,000 Hindus. However all three religions are superimposed upon the prevailing spirit and ancestor worship.

Production, etc. Agriculture and mining are the chief occupations. The islands normally produced the following percentages of the world's annual yields: quinine 90, pepper 79, kapok 70, rubber 38, copra 30, oil palm products 20, tea 17, coffee 6, sugar 5. The islands were likewise a leading source of petroleum and tin. Bauxite, manganese, and coal were other mineral products. In 1941 6,000 factories and workshops were engaged in processing agricultural and mineral products for export. Foreign trade (1940): imports 444,300,000 guilders; exports 873,500,000 guilders (guilder = $0.53). In prewar times the chief trading countries were: United States, British Malaya, Netherlands, Australia, New Zealand, Great Britain, and Japan. Finance (1942 estimates): revenue 750,918,773 guilders, expenditure 813,802,815 guilders. The public funded debt (Jan. 1, 1942) totaled 1,233,839,000 guilders

Government. Under Dutch rule, the islands were considered an integral part of the Kingdom of the Netherlands. The Government at Batavia handled only local affairs under the guidance of the mother country. There was a Governor General appointed by the Crown, assisted by an advisory Council of the Indies, a cabinet, and a Volksraad (legislative assembly) of appointed and elected members with limited legislative powers. The Netherlands Government appointed the 5 members of the Council of the Indies and 2 (the war and navy ministers) of the 8 members of the Governor General's cabinet Governor General: Dr. H. Van Mook.

Events, 1946. In the course of the year, the conflict between the Netherlands and its vast colonial possessions in the Far East slowly but steadily was brought nearer to the only possible peaceful solution· a compromise on the basis of voluntary partnership between free and equal states.

Such a solution had been outlined by Queen Wilhelmina in her policy-making speech of Dec 6, 1942. With reference to this address, the Netherlands Government on Feb 10, 1946, made public a detailed offer to the Indonesians, which would provide for a self-governing commonwealth of Indonesia under the Crown, with equal civic rights for Indonesian and Dutch citizens in all parts of the Kingdom.

A few days earlier, tripartite discussions had begun in Batavia, in which the Dutch authorities, headed by Dr. Hubertus J Van Mook, Acting Governor-General of the Netherlands East Indies, were brought together with the Indonesian leaders under the moderating influence of Sir Archibald Clark Kerr, British special envoy.

The pourparlers progressed slowly. Premier Sutan Sjahrir of the unrecognized Indonesian Republic advised acceptance of the Netherlands plan as a basis for negotiations, but other leaders of the Indonesian National Committee insisted on full independence and expressed distrust of Dutch motives. This distrust grew as more troops arrived from Holland in March to take over military control from the British forces.

Early in April, the negotiations were shifted from Batavia to The Hague. Sjahrir, who in the meantime had reshuffled his Cabinet, sent three of his Ministers on the trip to Holland. This brought the parties nearer agreement on some details, but failed to produce a settlement.

In mid-June, the Indonesian Government handed to Van Mook counter-proposals demanding Indonesian authority over Sumatra as well as Java, and offering an alliance with the Netherlands in return for independence. On June 29, Sjahrir and five members of his Cabinet were kidnapped by an armed band of extremists, but were released two days later. Rumors that the coup had been in-

spired by President Soekarno proved groundless.

On July 14, British military authorities formally turned over to the Netherlands Indies Government all the Dutch possessions in the Far East liberated from Japanese rule, with the exception of Java, Sumatra, and the Riouw Archipelago, which were effectively controlled by Indonesian forces, outside of the great cities held by British and Dutch troops. The Indonesian Government immediately protested the British move.

On August 30, the Netherlands Parliament set up a commission general, headed by former Premier Willem Schermerhorn, to investigate the Indonesian situation and seek a settlement with the native leaders. The commission arrived in Batavia on Sept. 18 and immediately renewed negotiations with the Indonesians. The talks were again conducted under the neutral chairmanship of a British special envoy, Lord Killearn.

The first concrete result of this parley was the conclusion, on Oct. 14, of a truce between the Dutch and Indonesian military forces. This was designed to put an end to the intermittent, and sometimes savage, fighting which had continued through most of the year The truce, which involved some 200,000 armed Indonesians and 47,000 Dutch troops, cleared the way for decisive political negotiations

After four more weeks of arduous discussions, a draft agreement was finally reached at Cheribon on Nov. 12. The terms of the accord were made public on Nov. 18, amid new sporadic outbursts of violence in Java.

The Cheribon Agreement provided for the establishment of a United States of Indonesia, consisting of three autonomous states: (1) the Republic of Indonesia, including Java, Sumatra, Madoera and adjacent smaller islands; (2) Dutch Borneo; and (3) the "Great East," i e. Celebes, the Moluccas, and the Lesser Sunda Islands. The federation would be formed, and would receive full international recognition, by Jan. 1, 1949

While fully autonomous in internal affairs, the United States of Indonesia would remain allied to the Dutch Kingdom through the establishment of a Netherlands-Indonesian Union. The two components of this union would be partners of equal rank, bound together by common fealty to the reigning sovereign of the Netherlands. They would cooperate on foreign affairs, defense, finance, and economic as well as cultural subjects.

The Cheribon Agreement was hailed throughout the world as a masterpiece of compromise, but it met with fierce opposition both from colonially-minded Dutch circles and from extreme nationalists in Java, to whom even the purely nominal allegiance to the Queen appeared repugnant.

While the accord was being studied by the Netherlands Government and the States-General, British forces completed their evacuation of the Netherlands East Indies in the last days of November. The situation on the islands remained tense, however, and some fighting between Dutch and Indonesian troops was still reported early in December.

JOACHIM JOESTEN.

NETHERLANDS WEST INDIES. The colonial possessions of the Netherlands in the West Indies, comprising Curaçao and Surinam (or Netherlands Guiana), see below.

Curaçao. A Netherlands colony comprising two groups of islands 500 miles apart. One group just north of Venezuela includes Aruba (69 sq. mi.), Bonaire (95 sq. mi.), and Curaçao (210 sq. mi.); the other group just east of the Virgin Islands includes Saba (5 sq. mi.), St. Eustatius (7 sq. mi.), and the southern part of St. Martin (17 sq. mi.). Total area, 403 square miles. Population (January 1, 1945), 124,866. In 1944 there were 4,279 births and 1,104 deaths. Willemstad (capital), on the island of Curaçao, had 37,261 inhabitants (Jan. 1, 1945). Chief products: refined oil (from imported crude oil), straw hats, phosphate of lime, and salt. Oil refining is the most important industry. Trade (1944), excluding petroleum: imports were valued at 92,185,449 guilders; exports totaled 6,245,254 guilders. Air services link Curaçao, Aruba, Jamaica, Trinidad, and North and South America. Shipping entered the ports (1944): 14,885 ships of 146,180 tons. Budget (1945): revenue 28,177,919 guilders; expenditure 27,924,623 guilders (the exchange value of the guilder was $0.3793 in December, 1945). Curaçao is administered by a Governor, assisted by a council of 4 members, and a States Council of 15 members (10 elected by the voters and 5 nominated by the Governor). Governor, Dr. P. A. Kasteel (appointed May 21, 1942).

Surinam (Netherlands Guiana). A colony on the northern coast of South America, belonging to the Netherlands. Area, 54,291 square miles Population (1944), 191,628, including the Negroes and Indians living in the forests Chief towns: Paramaribo (capital), 60,723 inhabitants, Nieuw Nickerie, 5,000, Albina, Coronie, and Moengo. Vital statistics (1944): 5,346 births, 2,467 deaths, and 622 marriages. Education (1944): 115 schools and 18,243 students. The principal agricultural products are sugar, rice, maize, coffee, cacao, balata, bananas, oranges, molasses, rum, and timber. Minerals produced include bauxite, gold, and salt. Trade (1945): imports 12,626,652 guilders; exports 7,432,264 guilders. Shipping (1944): 301 vessels of 1,135,201 register tons cleared. Budget estimates (1945): revenue 9,541,294 guilders, expenditure 8,167,000 guilders. The executive authority and administration are under a Governor, assisted by an advisory council. There is a representative body called the States of Surinam consisting of 15 members (5 appointed by the Governor and 10 elected by the voters). Governor, Dr. J. C. Brons (appointed November 19, 1943).

NEW BRITAIN. The largest island in the Bismarck Archipelago in the Territory of New Guinea, mandated to Australia by the League of Nations. The island is 300 miles long and has an average width of 50 miles; area, 14,600 square miles. The native population of patrolled areas was 101,587 on June 30, 1941. Rabaul, the capital and chief port and settlement, had a non-native population of 4,674. There are many good harbors, the chief being Linden Haven, Powell Haven, Simpson Haven, Jacquinot Bay, and Arawe. See NEW GUINEA, TERRITORY OF.

NEW CALEDONIA. A French island possession in the southwestern Pacific, 850 miles east of Australia. It is 248 miles long and has an average width of 31 miles. Total area (including dependent islands), 7,336 square miles. Population in 1942, 56,000 (20,000 whites and half-castes and the rest Melanesians and Polynesians). Capital: Nouméa (12,000 inhabitants). The dependencies of New Caledonia are: Isle of Pines, Wallis Archipelago, Fortuna and Alofi, Loyalty Islands, Huon Islands, Bélep Archipelago, Chesterfield Islands, and Walpoole. Chief agricultural products: coffee, copra, cotton, manioc, maize, tobacco, bananas, and pineapples. Mineral products include nickel, chromite, cobalt, iron, and

manganese. Trade (1944): imports 405,000,000 francs; exports 227,000,000 francs. The local budget for 1945 was balanced at 141,538,000 francs. A Governor, assisted by a privy council and an elected general council, administers the government. Governor: A. Tallec.

NEWFOUNDLAND. An island lying between the Gulf of St. Lawrence and the Atlantic Ocean. Its dependency, Labrador, lies north of the Gulf of St Lawrence, between the Province of Quebec and the Atlantic. Newfoundland, with Labrador, forms a part of the British Empire. Area, exclusive of Labrador, 42,734 square miles Population (estimated) at the end of 1943, 313,022. Capital, St. John's (55,000). The dependency of Labrador has an area estimated at 110,000 square miles and a population in 1935 of 4,716.

The People. The inhabitants are mostly of English and Irish descent. The Roman Catholic Church and the Church of England each included more than 90,000 persons in 1935, with the United Churches also including large numbers. From 7 to 10 percent of the adults are illiterate, but a school attendance act providing for free and compulsory education of children from 7 to 14, which went into effect in 1942, was expected to improve the situation

Economic Life. Agriculture on the island has not yet reached a point where it can support domestic demands. The soil in many sections is considered unfertile The Commission has extended land surveys and has planned to establish some of the islanders on farms capable of providing a livelihood.

The greater part of the population lives on the returns from fish products, newsprint and mineral ores In 1946 a considerable part of the fish exports went to UNRRA, and the business hoped that with the cessation of these orders the former European and South American markets would be restored Newsprint goes to the United Kingdom and the United States, iron ore chiefly to Canada, and zinc and lead principally to the United States Estimates of the male labor force vary, but in the relatively normal year of the 1935 census it was set at 77,700 with nearly one-half (36,000) in the fish industry.

The greater part of the imports come from Canada. The Government depends on tariffs as the chief source of revenue, with $17,000 from that source in 1945 out of a total revenue of $33,000.

Government. As a result of acute financial difficulties caused by the depression in the export industries Newfoundland's status as a self-governing dominion of the British Commonwealth was temporarily altered in December, 1933, to that of a British colony. The British Government assumed responsibility for Newfoundland's financial obligations and provided an annual grant-in-aid pending restoration of the island treasury's financial solvency. Effective February 16, 1934, executive and legislative authority was vested in the Governor and a Commission of Six—three Newfoundlanders and three British—all appointed by the British Government. Each member of the Commission has charge of a government department. Governor, Sir Gordon Macdonald, appointed January 16, 1946. For contemplated changes in government, see below.

Events, 1946. Newfoundland was occupied throughout the year with preparations for the convention to determine the future status of the former dominion and later with the deliberations of the convention itself, which were not concluded when the year ended. On December 11, 1945, the British Government had announced that the people of Newfoundland were to elect the members of a convention by full adult suffrage (see YEAR BOOK for 1945, p. 424). It was also proposed to present a comprehensive economic and financial survey of the country for the information of the convention.

The reforms planned for Newfoundland by the Commission members proved only moderately successful, but the war brought the establishment of vast bases, increased employment and accumulated treasury surpluses of nearly $30,000,000 by 1946, so that, instead of borrowing from Britain, Newfoundland was able to advance that country interest-free loans. In the year ended March 31, 1946, Newfoundland had a per capita debt of only $283 as compared with Canada's $1,400. After the close of the war the transplanted workers tended to revert to their former occupations in Newfoundland or to emigrate.

Convention Sessions. In the election held in June, 1946, the specified number of 45 members for the convention were elected from a slate of 129 candidates, by a 70 percent poll with women voting heavily. The convention opened its meetings in St. John's on September 12. It was charged with the duty of recommending to the people of Newfoundland a form of government on which a referendum must then be taken

The three practicable alternatives appeared to be: (1) retention of the commission form of government; (2) home rule; (3) confederation with Canada. In a poll conducted by a St. John's newspaper, in which 11,000 votes were cast, a commission of elected Newfoundlanders took first place with 3,734 votes. Approximately 2,000 voted for each of three other possibilities: confederation with Canada, union with the United States and union with the United Kingdom Responsible government received only 550 votes.

Early in November a proposal to send a delegation to Ottawa to learn Canada's terms for union was defeated in the convention after a week's debate. It was understood that this did not mean that the convention was unwilling to learn Ottawa's terms, but merely that the convention should first complete its investigation into Newfoundland's affairs so that Newfoundland should not go as a suppliant but as a country offering terms as well as asking for them.

When the convention began a three-week Christmas recess there was little indication which form of government would be recommended. In lively debates in the closing days before recess many delegates expressed hostility towards the existing British-sponsored administration. In spite of the evidence of the unofficial poll, it appeared that many delegates favored dominion status and responsible government.

Agreement on Bases. At an air conference held early in the year by Newfoundland, Britain, and Canada an agreement was concluded concerning the disposition and use of certain defense installations in Newfoundland. During the war Canada, by agreement with Newfoundland, had assumed responsibility for the operation and control of Gander, Gleneagles, and Botwood air bases for the duration of the war, and later constructed Goose Bay air base, in Labrador, and Torbay air base, near St. John's. By agreement with the British and Newfoundland governments Canada also constructed, on behalf of the British Admiralty, a naval base at St. John's. These bases were available to Britain and the United States.

The new agreement, announced in May, provided that control of the air bases at Gander, Gleneagles, and Botwood should be handed back to

Newfoundland in accordance with the original understanding. Canada was to continue to operate Torbay airport as a civil airport for the Newfoundland-Canada service. The agreement also provided that Canada and Newfoundland, and as necessary the British Government, would consult with one another as occasion might require with a view to coordinating defense in Newfoundland.

In the course of the year the Gander airport was developed by the civil aviation department of the Newfoundland Government and the eight international lines operating through it, Air France, American Overseas Airlines, British Overseas Airways Corporation, Royal Dutch Airlines, Pan-American World Airways, Scandinavian Airlines System, Trans-Canada Airlines, and Trans-World Airlines. James M. Eaton, American Overseas Airlines vice-president, served as chairman of the airlines' Gander Airport Committee which coordinated the project.

ALZADA COMSTOCK.

NEW GUINEA. An island in the East Indies, north of Australia. It comprises Netherlands New Guinea (151,000 sq. mi.), North East New Guinea (69,700 sq. mi.)—the mainland part of the Australian mandated Territory of New Guinea, and Papua (87,786 sq. mi. excluding islands)—a Territory of Australia (formerly called British New Guinea). Total area, 308,486 square miles. Population, approximately 1,000,000. See NEW GUINEA, TERRITORY OF; PAPUA.

NEW GUINEA, Territory of. A territory administered by Australia under mandate conferred by the League of Nations from December 17, 1920; occupied by Japanese armed forces during 1942–43; reconquered (by June of 1944) by the Australian and Allied armed forces. On October 18, 1946, Australia proposed to the United Nations that she continue as administering authority of the mandate. It comprises North East New Guinea (also called the Mainland), 69,700 square miles; Bismarck Archipelago (consisting of New Britain 14,600 sq. mi., New Ireland 3,340 sq mi, Lavongai 460 sq. mi., and Admiralty Islands 800 sq mi), 19,200 square miles, and part of the Solomon Islands (Bougainville 3,880 sq. mi., Buka and adjacent small islands 220 sq. mi), 4,100 square miles Total area, 93,000 square miles. Total enumerated natives in patrolled areas (June 30, 1941), 684,284, including 34,087 indentured laborers; in addition, there were 4,101 Europeans and 2,228 Asiatics. Rabaul (on New Britain), had 10,174 inhabitants in 1939. Chief towns of North East New Guinea: Aitape, Lae (capital of the Territory), Madang, Monumbo, Morobe, Salamaua, Vanimo, and Wewak.

Production and Trade. In 1940–41 the output of gold amounted to 263,097 fine ounces valued at £2,808,835. Platinum, osmiridium, copper, iron, sulfur, and brown coal have been found. The area under cultivation in 1940 (exclusive of native reserves) was 277,533 acres, of which 261,676 acres were devoted to coconuts (71,583 tons of copra produced in 1940), cocoa 5,827 acres, rubber 2,481 acres, and coffee 2,792 acres. Livestock (1939–40): 20,474 cattle, 9,327 goats, 6,160 pigs, 1,184 sheep, and 1,323 horses. Timber and fish are other products. Trade (1940–41): imports £962,129; exports £3,253,984. Shipping (1940–41): 95 vessels aggregating 216,365 tons cleared.

Government. Finance (1940–41): revenue £423,750; expenditure £431,792 (the official exchange rate of the Australian £ was $3.228 in 1940, 1941, and 1942). Administrator: Maj. Gen. J. K. Murray (appointed Sept. 15, 1945).

NEW HEBRIDES. A British-French condominium in the South Pacific, 250 miles northeast of New Caledonia. The chief islands of the group are Espiritu Santo, Malekula, Epi, Ambrym, Efate, Erromanga, and Tanna. Population (1944 estimate): about 43,000, of whom about 40,000 were natives, 112 British, 792 French, and the remainder almost entirely Asiatics. Capital, Vila. The British High Commissioner and the French High Commissioner for the region delegate the powers of government for the New Hebrides to Resident Commissioners of the respective nationalities stationed on the islands. The chief exports are cocoa, copra and coffee. Sugar, cotton and fruits are also produced.

NEWSPAPERS. Newspapers in the United States in the first full year of peace enjoyed the largest circulations in their history, and a volume of advertising limited generally only by the supply of newsprint available On the other side of the ledger they were faced by increased costs on a scale never before known; newsprint was advanced first $7 and then $10 more a ton to the highest contract price on record Wage scales, particularly those negotiated in the latter part of the year after the end of OPA, recorded increases never before equalled in any twelvemonth. Labor relations in the newspaper field deteriorated badly and the year was marked by a number of costly strikes of long duration.

The cause of a free press gained moderately in the world, but not so much as had been hoped for in the aftermath of a war fought for freedoms. In the occupied countries the press was under control of the governing authorities The chief progress in the direction of free news and opinions was in the continuing international discussion of its importance.

The number of daily newspapers in the United States gained slightly both in 1945 and 1946, reversing a trend of many years. Undoubtedly more new dailies would have been born had it been possible to obtain newsprint. Twenty-eight new English language daily newspapers began publication in the United States during 1946 Morning newspapers totaled 334, a net gain of 4 in 1946; evening newspapers totaled 1,429, a gain of 10. Sunday newspapers numbered 497, a gain of 12.

Circulations expanded in virtually every country. In the United States the total sale of newspapers rose to 50,927,505 daily according to the report in the year book of *Editor & Publisher*, the trade publication. Sunday newspapers showed the greatest percentage gain (9 5) over the previous year, morning weekday issues gaining 6.7 percent and evening 4.2 percent. The estimate was made that readers in the United States and Canada spent $803,593,000 a year for their newspapers.

Circulation prices were increased throughout the country. Higher expense in every department of publication made it advisable to obtain more income from circulation—a stable cash income—and the trend of recent years toward getting a higher proportion of revenue from readers was intensified A new law required weekly newspapers to publish statements of circulation as well as of ownership; they had been exempted from this requirement in the act of 1912. Incidentally the attaining of record high circulations after the end of the war surprised some observers; but the reasons were not difficult to discover. The people had money to spend, and the news of economic read-

justments affected the individual even more than the tidings of a remote war.

Advertising gained substantially in volume and rates were advanced. Some restrictions upon space were kept because of newsprint limitations but the total newspaper advertising was estimated to be 20 percent greater than in 1945. Delayed production of goods held back the advertising of national companies such as automobiles and household equipment, but these were expected soon to be in a competitive market and to use larger space. An increase of $16,000,000 in the expenditure in this classification was registered despite the difficulties of production.

Interesting developments in newspaper advertising were the decision of *PM*, the New York newspaper owned by Marshall Field, to abandon its policy of trying to get along on circulation revenue alone, and to accept advertising; the publication of an exhaustive study of the place of the newspaper in national advertising, by the Harvard School of Business Administration; and the actual beginning of operations by an American Newspaper Advertising Network. This last was an experiment in permitting advertisers to buy a selected "package" of newspapers in many markets in a single insertion order. Its success had not been sufficiently tested as the year ended, but the need of some such agency was generally admitted. The conclusions of the Harvard study were that neither newspaper publishers nor national advertisers had developed the potentials of the use of space in daily publications, and that intelligent research and promotion were needed

As in the war years, newsprint remained a problem The Office of Price Administration control was ended. A few publishers objected to ending the controls over the amount of newsprint one was permitted to buy and use, fearing that in an unrestricted market some smaller newspapers would be left out. Some difficulties were experienced by small users who purchased through agents and not direct, by contract, from mills; but these were fewer than had been expected and voluntary steps were taken to see that no legitimate publication was forced to suspend.

The base price of newsprint rose in two jumps of $7 and $10 to $85 a ton. This still was far from the top of $130 a ton in 1921, just after the first World War; but it was more than double the $40 price which obtained in 1933–34–35–36. Reports were received that spot newsprint was being sold at fantastic prices.

United States newspaper publishers had witnessed an $180,000,000 increase in their newsprint cost in five years, according to a reliable estimate. Moreover, no appreciable relief was in sight in the world supply. Such production as the Swedish and Finnish mills might have available went to Europe, South America and elsewhere at prices far above that paid in the United States. Newspapers in those countries had fared far worse than in North America, and continued to print issues limited in size and number.

More mills in the United States stopped making newsprint and turned to higher priced products. Canada, the main source of supply, held up its volume and furnished 3,288,000 tons despite some labor troubles Manufacturers warned that no great increase in this total could be expected in the near future; as for prices, in the face of the world situation, publishers felt reasonably secure against a runaway market in the United States.

Labor occupied the attention of publishers more than in any year before. Through the war years increases in scales had been limited to 15 percent over the January 1, 1941 levels. Labor had been restive under these limitations; and with the rise in the cost of living, which had been gradually apparent and pressed itself upon the wage-earner's attention as the war ended and OPA controls were relaxed, then stopped, labor pressed its demands.

Strikes were numerous, and in many departments of operations. The principle of arbitration lost substantially. More and more unions adopted international laws forbidding the incorporation of arbitration clauses in contracts. Wage demands in the union proposals were unrealistic, to put it mildly. In many cities unions proposed weekly scales of $110 and $115, representing increases of nearly 100 percent.

Settlements were made which gave the workers a greater dollar increase in one year than they had gained in any three or four-year period before. Scales went up in some cities as much as $14 and $15 weekly, and gains of $10 to $12.50 were widespread. Hours were reduced in some contracts. The Bureau of Labor Statistics issued figures which showed that the average hourly wage of $1 47 in the newspaper and periodical industry was far higher than in any other; and the scale increases in 1946 were certain to add to this differential. While an increase of 18½ cents an hour was the figure over which struggles were fought in the motor and other industries, newspaper unions won hourly gains of 25 to 40 cents.

In the year a total of sixty-three newspapers in thirty-seven cities suffered from strikes. In all there were thirty-nine strikes, some of them affecting more than one newspaper. Of these twenty-five were initiated by the typographical union. Pressmen began five strikes and the guild four strikes. The main issue was wages. The cost was tremendous to both publishers and workers. In Springfield, Massachusetts, all four daily newspapers were suspended for months, and the year ended with no solution in sight. In Rochester the Gannett newspaper ceased publication for many weeks, and after agreement on a scale, the workers refused to go back to work unless they were paid for the time they had been on strike. In Los Angeles the guild struck in its attempt to get the $100 weekly scale which the national union had set as the goal of editorial workers. Settlement was finally achieved at a reasonable figure approximating $75.

Both publishers and workers were aware that labor relations had deteriorated seriously in the year. The prime cause was the cost of living Some unions, however, by international action, adopted laws which promised no improvement in collective bargaining The guild, in its convention, voted overwhelmingly for support of the CIO political action program. Several unions approved large sums for organization and support of strikes.

Abroad the newspapers suffered under different troubles In Great Britain Parliament announced an inquiry into the press. The proposers expected to show ownership of a large proportion of the press by a few wealthy persons, and a lack of public responsibility. (In the United States a congressional inquiry into the difficulties of small newspapers was announced for January 1947 and was later postponed.) The British newspapers still were sharply limited in their newsprint supplies and continued to publish small issues. Under the increased ration allowed in September the 4-page one-penny newspapers were enabled to print six pages three times a week. A determining factor was the necessity for limiting imports and conserving the foreign exchange balance. Despite

these limitations, circulation of the *Sunday News Of The World* rose to an unprecedented figure of 7,412,383 copies, a total not approached by any other newspaper in any land. A long range program of newsprint imports, running into 1950, was set up by a British Committee; an "escalator" scale was provided allowing for an annual average of six page papers in 1947, eight page in 1948, ten page in 1949 and twelve page in 1950. Advertising space restrictions were removed in November, 1946.

If one excepts the Parliamentary inquiry which was attacked by some as a curb on the rights of the press, the British newspapers retained their customary freedom. In general, too, this freedom was increased throughout the world. Rigid censorship prevailed in Spain and Portugal and in the countries in the Russian zone of influence. In South America, Argentina curbed the newspapers as in recent years, and some tendency in this direction was noted in Chile, Uruguay, Bolivia and elsewhere, as political tensions increased.

Correspondents of United States newspapers enjoyed reasonable freedom. Russia remained difficult as a land in which to gather and send news unhampered. The pressure on writers in Yugoslavia, Rumania and other countries was not too rigid. In Germany the licensed press was quite free in the American-British and French zones, but restricted in the Russian sphere of control. Some military regulations governed newspapers in Japan, but correspondents were relatively free except for questions of "military security."

In France newspapers were permitted to increase from two to four pages in June. The Government authorized all publications. Most of the small newspapers which sprang up were mere party organs printing opinions and not news. The largest circulation was that of *L'Humanité*, a Communist daily, and the next that of *France-Soir*, with 600,000 copies. The Havas News Agency had been suspended by the government for collaboration. Plans were in the making for a cooperative news agency owned by the publishers similar to the Associated Press. The question of confiscation of the considerable number of newspapers charged with collaboration continued to be debated. The value of these properties, which included such journals as *Le Matin* and the *Petit Parisien* was estimated at $70,000,000.

In the United States many publishers continued to suspect an effort on the part of Government to control or harass the newspapers; this was not shared by more objective observers. The Supreme Court ruled that newspapers were subject to the wage-hour laws, but open minded publishers had long said that newspapers properly were subject to all welfare legislation governing general business. Some fear was expressed that the Kefauver bill prohibiting mergers of corporations in interstate commerce might forbid the joint operation of newspapers and thus abridge the freedom of the press. The bill was not passed and the author disavowed the application of the bill to newspapers.

The Associated Press and the United Press, which had supplied their news services to the Government for use by the OWI during the war, declined to continue them for use by the State Department in broadcasting news overseas. Despite pleas by William Benton, Assistant Secretary of State, the services maintained their stand. The American Society of Newspaper Editors, in a committee report, later backed the State Department's broadcasting proposal. The Associated Press had feared the use of its news service in propaganda.

An important step was taken by the State Department in suggesting that the United Nations place consideration of world freedom of information in the hands of a special group. Such freedom of information was to be incorporated in a broad international bill of rights.

The first report of the commission on the freedom of the press, a body established chiefly by Henry Luce and Time, Inc., to study this question was issued by Llewellyn White and Dr. Robert D. Leigh. This report entitled *Peoples Speaking to Peoples* argued strongly for free interchange of news, and a multilateral covenant to assure this flow across national borders. Some of its other proposals, however, seemed to provide for the entrance of government agencies into the field of news dissemination. The continued discussion of world freedom of news was outstanding in 1946.

A collateral issue affecting editorial independence was the hearing by the Federal Communications Commission in the application of the New York *Daily News* for a radio station license. The application was opposed by some groups on the ground that the newspaper allegedly had been anti-semitic in its opinions and news. The right of a government commission to question a newspaper's opinions was challenged by counsel for the *News*.

The famous case involving the bylaws of the Associated Press, in which the government won its effort to compel a change, was ended. The directors voted that competition by an applicant with members of the association was not to be considered in voting on admission. The court ruled that so long as this amended bylaw was in force the injunction against the Associated Press would be stayed. A group of 114 publishers voted to petition congress to amend the anti-trust laws to permit any press service to exercise its own discretion in the selection of its members. Such a bill was introduced and failed of passage.

Kent Cooper, executive director of the Associated Press, reported that it was serving 2,604 clients, newspapers, and radio stations, in twenty countries. Hugh Baillie, president, said that the United Press reached a total of 2,529 newspapers and radio stations.

In Great Britain, Reuters, the chief news agency, announced that the Australian Associated Press and the New Zealand Press Association would become partners in Reuters along with United Kingdom newspapers. The American military government in Germany licensed Dana, a news agency, and transferred it to the ownership of forty-one newspapers.

American newspapers announced plans for new buildings and equipment totalling $250,000,000 but long delays were expected in construction and installation.

An interesting innovation was the opening of the press institute for working newsmen at Columbia University. Courses for editors, news editors, reporters in several specialized fields were offered and some of the best known men in the newspaper world attended these seminars. The Institute was regarded as a significant contribution to the professional side of newspaper making.

Among distinguished newspaper men who died in the year were Joseph M. Patterson, creator and publisher of the New York *Daily News*, George Dealey, publisher of the Dallas *News*, W. T. Dewart, Jr., of the New York *Sun*, Damon Runyon, writer, and Senator Carter Glass, publisher of the Lynchburg, Va., *News*.

CHARLES MCD. PUCKETTE.

NEW ZEALAND. A British Dominion in the South Pacific Ocean, consisting chiefly of two large islands about 1,200 miles east of the southeastern coast of Australia. The Dominion has jurisdiction over Western Samoa (a League of Nations mandate in transition to United Nations trusteeship), the Tokelau or Union Islands, some islands of Oceania and the Ross Dependency. Area, 103,723 square miles. Population (1945 census), 1,746,319, including 97,263 Maoris. Capital, Wellington.

The People. The accelerated urbanization of the population and the relatively high Maori increase were the principal changes shown by the census of 1945. The Maori population, which amounted to 97,263 out of the total of 1,746,319, showed an 18.1 percent increase over 1936, as compared with an increase of 11 percent for the whole. The urban population was 63 1 percent in 1945, as compared with 59.3 percent in the earlier census In 1944 the birth rate was 21.6 per 1,000, the death rate 9 9, and infant mortality stood at the strikingly low point of 30 1 per 1,000.

Primary education in New Zealand is free and compulsory. The number of schools at all levels is large, and the four colleges of the University of New Zealand had an attendance of 7,730 in 1944. New Zealand has an extensive social security system which began in 1898 with old age pensions and is therefore the oldest in the British Commonwealth. Latest available figures show religious affiliations as follows. Church of England, 40 percent, Presbyterian, 23 percent, Roman Catholic, 13 percent, and the remainder scattered.

Government. Executive power is vested in a Governor-General, appointed by the Crown for five years on recommendation of the Dominion Government. Legislative power rests with a Parliament of two chambers: the Legislative Council with an indeterminate number of members (usually over 30), appointed by the Governor-General for 7 years, and the House of Representatives of 80 members, including four Maoris, elected every three years by general male and female suffrage. There is a Cabinet and Prime Minister responsible to the House of Representatives. Prime Minister, Peter Fraser, Labor

Lieut. Gen. Sir Bernard Freyberg was given popular demonstrations of welcome in Wellington when he was sworn in as Governor-General on June 17, in recognition of his being the first New Zealander to fill the post and in acknowledgment of his unusual war record with the New Zealand troops. Earlier in the year the first two women were appointed to the Legislative Council.

Events, 1946. The Labor Government, elected for the first time in 1935, was returned to office for its fourth term in the general election held on November 27, but with a slightly reduced majority. Labor won 43 seats and the National Party 37, while in the previous Parliament Labor had 44 and the National Party 35, with one seat vacant because of the death of an independent who voted with Labor. It was believed that the Labor victory might have been doubtful if in 1945 the Government had not abolished the "country quota," which for more than 50 years had given a greater proportionate representation to rural areas than to urban.

By December 20 the Cabinet was partly reconstructed, with the filling of vacancies which arose from reasons of health. E. L. Cullen, a farmer, was assigned to the Ministry of Agriculture and Marketing, and former Federation of Labor president McLagan to the Ministry of Labor, Mines and Employment.

Western Samoa Trusteeship. Discussion of New Zealand's draft agreement for trusteeship of Western Samoa, for which the country held a League of Nations mandate, began in a subcommittee of the United Nations General Assembly in New York on November 15. This agreement, one of eight submitted for first consideration at this time, was selected as a desirable basis for ascertaining the area of agreement among the members of the committee. The security provisions of the draft, which would permit New Zealand to fortify the islands—action which was forbidden under League of Nations mandate—were defended by C G. R. Mackay, New Zealand Secretary of Island Territories.

The draft agreement received the detailed criticism which was anticipated for the first considered, and New Zealand patience wore thin Sir Carl A. Berendsen of the New Zealand delegation warned the subcommittee that if there was a serious difference of opinion, New Zealand and Samoa would continue the League of Nations mandate. The New Zealand point of view with respect to its right to accept amendments was supported by United States representative John F. Dulles, who argued that otherwise the trusteeship system was in danger of being talked to death. This point of view was in line with New Zealand's protests against filibustering tactics at the sessions of the Paris Peace Conference.

New Zealand, with Australia, Soviet Russia, and Liberia, declined to sign the Bretton Woods Agreements by the deadline of December 31, 1946. Opposition in the House of Representatives was based on disapproval of the power of the dollar bloc in the International Monetary Fund and the International Bank for Reconstruction and Development, with (it was held) accompanying domination over countries which preferred links with the pound sterling.

Relations with the United States Lend-lease and mutual aid obligations were settled by New Zealand and the United States in July, with no cash settlement New Zealand agreed to buy American surplus war property, consisting of capital equipment and non-combat aircraft in the Pacific area, for $5,500,000. The United States expected to use the money to acquire real estate and construct American government buildings in New Zealand On December 3 the signing of a bilateral air transport agreement between New Zealand and the United States was announced in Washington, together with an identical agreement between Australia and the United States.

There was considerable popular support for the Auckland dock workers' refusal in July to load a shipment of 10,000,000 pounds of butter for the United States. Union president Barnes said in a public statement that it was impossible to reconcile sending the butter to the United States, where there was no rationing, with the world food situation. After explanation by Prime Minister Fraser that New Zealand, which had sold the whole of its exportable butter supply to Great Britain, was acting simply as the agent of the British Government, the protests subsided.

Relations with Britain. The terms of the revision of the 1944 bulk-purchasing agreement between New Zealand and Great Britain, as announced by Finance Minister Walter Nash in September, were bound to supply a base for the Dominion's economy until the expiration in 1950. The contract provided for Britain's buying the whole of New Zealand's exportable surplus of meat, butter, cheese and dairy produce. Since separate planned marketing arrangements had already been made for wool,

the greater part of the country's trade was guaranteed a market for the whole of its production. In addition, the farmer was insulated against sudden rises and falls on world markets.

The revision of the agreement raised prices above those previously paid, and provided that new price arrangements should be made annually. All payments from the sales to Britain are put in stabilization accounts, from which farmers draw a standard guaranteed rate for their produce, based on costs of production and an agreed profit margin rather than on British payments or world prices. In 1946 the stabilization funds were in such good condition that farmers could be paid at ruling rates for several years, even if world markets should collapse.

Employment and Immigration. With the passage of the employment bill early in the year New Zealand's reconversion plans were well on the way to completion. They included long-term public works and housing projects, stimulation of secondary industries through the foreign trade controls set up in the exchange crisis of 1938, creation of a system of government employment agencies, and maintenance of purchasing power by the establishment of a family minimum income.

The House of Representatives Select Committee on Population, which reported in September, decided against recommending an immediate large-scale scheme of assisted immigration. Instead it indorsed a selective scheme under which immigrants would be chosen to fill specific shortages in New Zealand.

The Committee believed that immigration of agricultural workers was unnecessary, as an expected settlement on the land of 8,000 ex-service workers would meet the farm needs, but desired that the Government should give attention to such occupations as those of hospital nurses, domestic workers, coal miners, saw millers, and operatives for certain expanding secondary industries. British immigrants were preferred, but since it was likely that Britain would not wish to lose many young, able-bodied citizens, it was recommended that inquiries be made of Norway, Denmark, the Netherlands and perhaps Poland.

All large bodies of troops serving overseas were repatriated by the end of the year. Plans for rehabilitation were made early, under the Rehabilitation Act of 1941. Loans were granted for land settlement, in amounts up to $16,000 for ordinary farms and up to $20,000 for sheep farms. Loans of about $77,000,000 had been made up to November, 1946, out of an authorized total of $103,000,000, exclusive of gratuity payments. It was required that one-half of the houses built by the Government should be allotted to veterans.

The Economy. In spite of the rapid expansion of manufacturing, New Zealand's economic system continues to rest upon agriculture as a source of valuable exports. In 1944 all of the chief exports were of this class, with butter (£18,560,951), wool (£12,711,407), and lamb (£9,643,671) leading the list. The only important non-agricultural export was gold (£1,423,556) which was placed far down on the list. Total exports of £77,786,946 were less than imports (£86,686,531).

ALZADA COMSTOCK.

NICARAGUA. A Central American republic. Area: 57,143 square miles. Population: 1,030,700 (1942). Capital: Managua.

Nicaragua's eastern and western lowland regions are separated by a highland area of from 5,000 to 7,000 feet elevation sloping gradually toward the southeast. The low coastal lands of the east have a wet tropical climate, while the northwestern lowland area has the driest weather. Temperature to cool weather is found in the highland regions, varying according to altitude.

Population. Eighty percent of the total population of Nicaragua are mestizos: 13 percent are of European descent; 2 percent are Negroes, and 5 percent Indians. Highest regional density of population is in the western lowlands. The chief cities are: Managua, 100,717; León, 35,485; and Granada, 25,530 (1941 est.). The largest foreign colony is Honduran.

Spanish is the official language of the country. Roman Catholicism is the predominant religion.

About 37 percent of the total population is estimated to be literate. In 1945 there were 774 primary schools with a total enrollment of 61,000. In 1945 there were 30 intermediate schools with a total registration of 2,000, and 413 students were enrolled in schools of higher education. There are 3 universities Fifty-eight rural schools were opened in 1944, reaching a total of 645 in 1945 to provide instruction for over 33,000 children.

National Economy. Nicaragua's economy is agricultural. Coffee is the most important crop, with sesame seed ranking second. Sugar, rice, cotton, corn, beans, and bananas are also important crops. Livestock-raising is one of the principal occupations; there are an estimated 800,000 head of cattle in the country. Nicaragua also produces important forest products.

Gold and silver are practically the only minerals mined in Nicaragua. In 1944, gold production amounted to 219,579.1 troy ounces; silver, to 254,457 2 troy ounces.

There is little manufacturing. Small establishments make such articles as cigarettes, matches, beer, cement, leather shoes, furniture, and cotton textiles.

Foreign Trade. The value of the foreign trade of Nicaragua in 1945 was estimated at $26,000,000 of which imports constituted $12,000,000 and exports $13,000,000. In that year gold exports were $7,100,000; coffee $3,600,000; rubber, $846,000; lumber, $688,000; sesame seed, $361,000, sugar, $325,000. The United States was the principal market, receiving about 90% of the total exports Costa Rica ranked second as an export market, Panama third, Peru fourth, and Honduras and Great Britain fifth.

Leading imports in 1945 were estimated at: textiles, $2,000,000; machinery, vehicles, $1,900,000; chemicals, $1,067,000; foodstuffs, $1,200,000; petroleum $811,355; iron and steel products $800,000, and paper products, $264,000. The United States was the chief source of Nicaraguan imports, supplying 70% of the total. Mexico ranked second, followed by Canada, Panama and Costa Rica.

Government. Under the Constitution of 1939, Nicaragua has a bicameral Congress: a Senate of 15 members and a Chamber of Deputies of 40. There is a Cabinet of 9 members. All former presidents who were elected directly may sit as members of the Senate. The present Congress was formed by the division into two chambers of the Constituent Assembly elected in 1938, and it is to serve until Apr. 15, 1947. Anastasio Somoza became President in 1937 for a 4-year term which was extended in 1939 for 6 years as the result of adoption of the new Constitution.

Events, 1946. The political year opened on January 7 with President-General Anastasio Somoza telling a gathering of 2,000 district political leaders that he would not be eligible for another Presiden-

tial nomination. President Somoza, whose term expired on January 1, 1947, later told reporters that "the office of Presidency has a bitter taste I believe [the people] are getting bored with me." At the end of January minor demonstrations cropped up in Managua and the Cabinet resigned. A possible Presidential candidate was seen in the resignation of Dr. Mariano Arguello, Foreign Minister for ten years and chairman of the Nicaraguan delegation to the United Nations San Francisco Conference.

After a report was printed in United States newspapers concerning anti-Somoza demonstrations in Managua, Dr. Guillermo Sevilla Sacasa, Nicaraguan Ambassador in Washington, declared on February 3 that the reports of disorders were untrue and that political parties carried on meetings "with all the liberties expected by the organizers and granted by the Government" In mid-February the Nicaraguan Confederation of Labor announced it would not participate in the Presidential elections scheduled for February, 1947

During the Congressional sessions in March Senator Arguello Vargas was elected President of the Congress, but later resigned to become a Presidential candidate.

President Somoza's National Liberal party held its nominating convention on August 12 at León. When Somoza-sponsored Dr Lorenzo Guerrero failed to get a necessary two-thirds majority, President Somoza submitted Dr. Leonardo Arguella. Arguella was unanimously approved by the convention.

On September 1 the opposition Independent Liberals, with the Conservatives, selected Dr. Enoc Aguado as their Presidential candidate

After being assured of Dr. Arguello's nomination, President Somoza immediately flew by plane to the United States for an emergency surgical operation.

A law authorizing all Nicaraguans to occupy and acquire free tracts of uncultivated Government lands up to twenty-five hectares was passed by Congress on November 16. Heads of families were permitted to acquire 50 hectares. If within two years after the acquisition at least four hectares have not been cultivated, title to the land will lapse.

In preparation for any possible vacancy in the Presidency, Congress on December 21 named Deputy Benjamin Lacayo, Deputy Carlos A. Bendava, and Senator Nofre Sandoval as the three Presidential designates eligible for succession.

Nicaragua closed the year with her economic situation in good condition, a balanced budget and a favorable balance of trade. Because of a curtailment in road construction, unemployment was in evidence for the first time in ten years. As new machinery was obtained, it was expected that exports of gold, lumber, bananas, hides, and oils would increase The Government was considering a loan, negotiated through the National Bank of several million dollars to assist coffee growers.

JOSEPH P. BLANK.

NIGERIA. A large colony and protectorate in British West Africa, including for administrative and statistical purposes the Cameroons under British mandate. Area of the whole, 372,674 square miles. Population (1943 estimate), 21,329,328. Capital, Lagos.

Government. Administration is in the hands of a Governor, assisted by an Executive Council and a Legislative Council of not more than 30 official members and 21 elected or appointed members to represent business and native interests. The Legislative Council enacts laws for all regions of the colony and protectorate except the northern provinces, for which the Governor enacts the laws.

The Governor is a member of the West African Council Nigerian currency is controlled by the West African Currency Board Large grants from the British Colonial Development and Welfare Fund have been made to Nigeria, which has a 10-year plan costing £55,000,000

Production and Trade The products of the large area are diverse in character, and include agricultural and forest products, gold, tin, and a variety of other minerals Palm kernels, palm oil, cocoa, groundnuts, hides, and skins are important exports. Cotton piece goods are usually the leading import, but iron and steel manufactures are also required in volume Exports customarily exceed imports in value

The People. Conditions of life vary from the almost European circumstances of Lagos to primitive conditions in the north. This situation provided a puzzling factor in the demands for a 50 percent increase in cost-of-living allowance put before the British Colonial Secretary by the Nigerian trade unions in October. The report of the commission of inquiry contained a cost-of-living index compiled by Lagos in the manner of the British Ministry of Labor, but recommendations must be applicable to areas where wife-purchase costs were factors in the rising cost of living. The Colonial Secretary approved the increase

Primitive areas have in general retained ancestral religions, but Christianity and Mohammedanism have many adherents. Education has made slow progress, except in the Christian areas. Only about one-seventh of the children of school age are in primary or secondary schools

ALZADA COMSTOCK.

NOBEL PRIZES. For the first time in the history of Nobel Prizes, four of the five awards were given to nationals of a single country as seven Americans won the prizes in medicine, peace, physics and chemistry, and a naturalized Swiss citizen won the literature prize.

The Nobel Prize in medicine and physiology, worth about $34,000, was awarded, on October 31, to Prof. Herman J. Muller, geneticist and member of the faculty of Indiana University at Bloomington, Indiana. The Nobel committee, which made the award from the Caroline Institute Medical College in Stockholm, announced that Prof Muller was given the award for his revolutionary discoveries regarding hereditary changes or mutations produced by X-rays striking the genes and chromosones of living cells.

Announcement of the other prizes, all worth 121,000 kroner or about $33,700, was made on November 14. The peace prize was divided between Miss Emily Greene Balch of Wellesley, Massachusetts, economist and worker in international women's organizations, and Dr John R. Mott of Orlando, Florida, a Young Men's Christian Association official who aided in the founding of five world federations. Miss Balch, former faculty member of Wellesley College, was honorary international president of the Women's International League for Peace and Freedom. Dr. Mott, as president of the World Alliance of Young Men's Christian Associations, went to Germany in February, 1946 to help German Young Men's Christian Association organizations fight the rising number of juvenile delinquency cases He has helped to develop the Student Volunteer Movement, the World Stu-

dent Christian Federation, the World Young Men's Christian Association, the International Missionary Council and the World Council of Churches.

One half of the chemistry prize was awarded to Prof. James Batcheller Sumner of Cornell University for his research in enzymes, and the other half was shared by Prof. Wendell M. Stanley and Prof. John Howard Northrop, both of the Rockefeller Institute for Medical Research, Princeton, New Jersey, for their achievements in preparing enzymes and virus proteins in pure form. Prof. J. B. Sumner first isolated the enzyme in 1926. The three men unveiled the mystery from enzymes and viruses by discovering that they were chemical compounds, thus enabling chemists to study them along chemical lines.

Prof. Percy Williams Bridgman of Harvard University was awarded the physics prize for his invention of apparatus producing extremely high pressures, and for studies within the sphere of high-pressure physics. In creating pressures as high as 750,000 pounds to the inch, he has been able to show much of the fundamental nature of the world and has created such anomalies as ice that resists boiling water, rubber that turns brittle and ordinary chemical compounds that suddenly transform into high explosives.

The literature prize went to Hermann Hesse, German-born novelist, who became a Swiss citizen in 1912. Most of his books have been translated into Scandinavian and Slavic languages, but only two—*Steppenwolf* and *Death and the Lover*—have been translated into English.

The Nobel Prize fund of $9,000,000 was established by will of Alfred Bernhard Nobel, Swedish inventor of dynamite, who died in 1896.

NORTH AMERICA. Excluding Mexico and Central America, but including Greenland, Newfoundland, and smaller adjacent islands, the continent has an area of about 7,591,498 square miles (19,662,000 square kilometers) and a population estimated at 143,178,000 on Jan. 1, 1940 The combined area of Mexico, Central America, and the West Indian islands was about 1,073,080 square miles and the population about 40,870,000.

NORWAY. A European kingdom occupying the western and northern part of the Scandinavian peninsula. Capital, Oslo. King, Haakon VII, who was born in 1872 and was elected to the throne by the Storting (parliament) Nov 18, 1905. Norway holds sovereignty over Svalbard (Spitsbergen and adjacent islands) in the Arctic Sea, 240 miles distant from the Norwegian coast (see SVALBARD); Norway also asserts sovereignty over uninhabited Jan Mayen Island in the Arctic Sea, and certain uninhabited areas in the Antarctic.

Area and Population. Covering an area of 124,556 square miles (land area, 119,148 square miles), Norway proper had 2,952,000 inhabitants on Jan. 1, 1941, by official estimate; by latest census, 2,814,194 in 1930. Only 28 per cent of the population of 1930 were classed as urban, and females exceeded males by about 71,000. The birth rate, per 1,000, was 16.3 for 1940 (15.9 for 1939); death rate, 10.9 (10 2). Populations of chief cities: Oslo, 268,606 in 1943; Bergen, 106,500 in 1938; Trondheim, 54,458 in 1930; Stavanger, 46,780 in 1930.

Production. In normal times 29 per cent of the workers followed agriculture or forestry, 27 industry, 10 commerce, 9 transportation, 7 fishing and whaling, 5 professions and public administration. Under German rule, all economic resources and productive facilities were coordinated as far as possible with the requirements of the Nazi war machine. Production (metric tons) of chief crops in 1944 were: wheat, 235,719; barley, 262,792; oats, 744,767; rye, 18,613; mixed corn, 48,864; potatoes (bushels) 31,905,029; hay (tons) 2,113,921. The value of ore production in 1943 was 49,574,000 kroner, with pyrites and iron ore accounting for a large majority of the total. Estimated mineral and metallurgical production in 1943 was (in metric tons): iron ore, 285,191; pig iron, 47,687; pyrites, 808,779; zinc and lead, 9,075; copper, 21,216; aluminum, 23,514; ferro-alloys, 97,168 On January 1, 1946, the merchant marine consisted of 1,464 vessels with a gross tonnage of 2,979,850. Manufacturing is confined chiefly to the processing of wood, fish, and minerals.

Foreign Trade. Imports in 1945 were estimated at 1,206,338,000 kroner, exports at 328,018,000 kroner.

Government. Under the Constitution of 1814, as subsequently amended, executive power is vested in the King, acting through a Cabinet responsible to the Storting The Storting consists of 150 members elected for four years by universal suffrage. It divides itself into two sections of 38 and 112, called the Lagting and Odelsting, respectively. In the elections for the Storting held on October 8, 1945, the following parties were elected: Labour, 76; Conservative, 25; Liberal, 20; Communist, 11; Agrarian, 10; and Christian Popular, 8.

Norway was invaded by German armed forces on April 9, 1940, and remained almost wholly occupied until May 8, 1945. For the German administration of Norway during that period and the puppet regime of Vidkun Quisling, see YEAR BOOK for 1944, p. 452.

Events. Norway, in 1946, presented a picture unique in Europe, and indeed in the world: a picture of perfect political stability, of quick economic recovery, of labor peace, and of smooth relations with foreign countries

On the political scene, nothing worth mentioning happened. With an absolute majority in the Storting, and little active opposition from any quarter, the Labor Cabinet of the young and competent Premier Einar Gerhardsen was able to work practically undisturbed. The only change in the composition of the Government occurred early in February as a result of Foreign Minister Trygve Lie's resignation, necessitated by his election to the post of Secretary General of the United Nations Halvard M. Lange, 43, a prominent member of the former Resistance, was picked to succeed him.

On several occasions during the year, the Norwegian Government reaffirmed, or demonstrated in practice, its determination not to allow itself to be drawn into any controversy or conflict between the great powers, but to remain on the best possible terms with all of them.

A minor, but significant, episode which occurred in the spring might be cited in evidence of this attitude. In January King Haakon invited the former British Prime Minister Winston Churchill to attend the celebration of Norway's national holiday, on May 17; the British statesman accepted. After Churchill's aggressive anti-Russian speech in March, however, the Norwegian Cabinet decided that Churchill's visit was not desirable at this time since it might be looked upon with disfavor by Moscow. Reluctantly, but conscious of his duty as a constitutional monarch, the King bowed to the will of his Cabinet and the invitation was withdrawn.

Possibly in connection with this incident, the impression developed in some circles that Norway

was becoming a Soviet satellite. A report from the Paris Peace Conference in August stated that some diplomats there expected Norway to "vote the straight Russian ticket" in major conference problems. Norwegian delegates immediately rejected this insinuation as unfair and their attitude at the Conference was one of absolute impartiality.

On Oct. 6, Foreign Minister Lange stated once more that Norway would not join "any bloc of nations," and would not allow herself to be drawn into "any sphere of influence." He told interviewers that his country instead would try "within the limits of a small nation" to act as "a connecting link" between Russia and the Western world.

Toward Peacetime Prosperity. All the more important developments of the year were in the economic field. Excellent progress was made in all branches of production, through a skilful combination of government planning and private enterprise.

In March, a so-called "National Budget" was made public, a blueprint for a five-year reconstruction program, which placed the emphasis on a heavy increase in the means of production, in preference to an immediate rise in the standard of living.

Anticipating a steady rise in the national income from 4,200,000,000 Kr. in 1946 to 5,100,000,000 by 1950, the National Budget envisages a yearly import surplus of from 800,000,000 to 1,000,000,000 Kroner, which is to be met through foreign loans. The imports financed by these loans, however, are to be used only for reconstruction purposes and for new investments in production capital, not to supply consumer demands as in the past.

The Budget evidently was designed to mark the inception of an intense phase in the development of Norwegian industry, with sizable state investments in a number of key industries. This policy was based to a considerable extent on the fact that the Germans, during the five years of occupation, had built in Norway a number of huge industrial plants which were now taken over by the state. The largest of these formerly enemy-owned assets was the Nordag aluminum combine, representing a German investment of 900,000,000 Kr.

In August, the Storting by a vote of 102 to 42 authorized the Government to undertake the construction of a modern electro-iron works at Mo-i-Rana (Nordland province), described as the largest single industrial venture in Norwegian history. With ample ore deposits, and abundant electric power of her own, Norway, before the war, imported about 90 per cent of her annual requirements of 300,000 tons of iron and steel. The new plant is expected to supply 200,000 tons of rolled iron products yearly. The large-scale development of Norway's water-power resources, begun by the Germans, will also be continued under Norwegian state control, according to the National Budget plan. Controlling interest in the gigantic electrochemical concern, Norsk Hydro, which formerly was French-owned, passed to the Norwegian state as a result of a wartime deal between Nazi Germany and Vichy France and the subsequent seizure of German assets in Norway. Negotiations with France for an equitable settlement were in progress toward the end of the year.

The index of industrial production reached prewar levels in mid-summer and continued to progress. Unemployment figures hit an all-time low on June 30, with 6,400 registered unemployed, against 15,200 available jobs.

Very satisfactory progress was also achieved in the rehabilitation of Norway's important merchant marine. By April 1, 1,450,000 gross tons of new merchant shipping had been ordered from Swedish, Danish, and other shipyards, for delivery within five years. Tonnage increase in 1946 was estimated at 580,000 gross tons, and Norway's merchant fleet, which had been reduced by one-half during the war, was expected to reach its prewar size by the end of 1950.

Peace on the Labor Front. In an address to the Norwegian Trade Union Congress in Oslo, late in May, Premier Gerhardsen said: "When the labor movement has the political power, as it has in Norway today, all of its members must be aware of the great responsibility entailed. The reconstruction of homes, industry, and the standard of living will be the great tests we shall be called upon to meet."

Norwegian labor responded to the appeal of its leaders by maintaining a perfect record of industrial peace throughout the year. Although in April basic collective bargaining agreements covering more than 200,000 Norwegian laborers came up for renegotiation for the first time in nearly ten years, no major strikes occurred. Differences over pay increases, which arose in a number of industries, were settled by the State Wage Board, without disturbances. In October, a nation-wide overtime production drive got under way, sponsored by the Government and endorsed by the labor unions, to speed the rehabilitation of war-ravaged areas.

The Purge. The prosecution of Nazi war criminals and quislings gathered momentum during the year, in contrast with the trend apparent in some other countries. In May, two of Vidkun Quisling's principal henchmen, former Minister of the Interior William Hagelin and former Minister of Education Ragnar Skancke, paid the supreme penalty for treason.

Mrs. Maria Quisling, widow of the executed Nazi leader, was acquitted of charges of collaboration on June 17. On the other hand, Mrs. Anne-Marie Hamsun, wife of the famous writer Knut Hamsun, on August 27 was sentenced to three years at hard labor for collaboration with the enemy. Her 86-year-old husband had previously been committed to an institution for the aged, after the State's case against him had been dropped on the ground of senility. Still another prominent personality, Henry Johansen, husband of the Metropolitan Opera star Kirsten Flagstad, died in Oslo prison in June; he was accused of having made huge war profits under the German regime.

The biggest mass trial in Norwegian legal history was held at Trondheim during the summer. It ended on September 20 with death sentences for eleven members of a Nazi terrorist gang, while nineteen others received varying prison terms. In a summary of current proceedings, Attorney General Sven Arntzen indicated early in July that 200 death sentences might be expected before the war-treason and war-crimes trials in Norway are concluded. He estimated that about 60,000 persons would be subjected to court action, including a large number of Germans.

JOACHIM JOESTEN.

NORWEGIAN LITERATURE AND ARTS.* In the field of magazine publishing a new contribution is the women's magazine *Kvinnen og Tiden* (*The Woman and The Times*) representing the continuation of an underground publication. It is already playing a central role in discussions concerning problems of the modern woman. The magazine is edited by Kirsten Hansteen, Norway's first woman cabinet

* From an article by Dr. Nic Stang, University of Oslo. Translated and revised by Ivan A. Jacobsen.

member and widow of Viggo Hansteen, the first Norwegian to be executed by the Nazis. Young intellectual prisoners set up the periodical *Ungdom* (*Youth*) following liberation, but despite its circulation of over 15,000 it was forced to turn to the public in 1946 for additional support. Norway's only art periodical, the very representative *Kunst og Kultur* (*Art and Culture*), edited by Dr. Harry Fett, appeared in the fall of 1946. It can be safely said that *Samtiden* (*Our Times*) under the editorship of Prof A. H. Winsnes is still the country's leading periodical. But the deeply conservative and strongly anti-Russian *Farmand* (*The Traveler*) is playing an amazingly strong role the country over. Dr. Trygve B. Hoff has managed to gather about him all those who are dissatisfied with the general trend toward a more State-directed economy. Otherwise, the Communists have set up their own periodical *Vaar Vei* (*Our Way*). In the spring of 1946 a broadly-based socialistic weekly edited by Torolf Elster made its appearance. The publication is carrying on the tradition of *Haandslag* (*Hand Clasp*) which was printed in Sweden during the war.

Norwegian literary contributions have been confined, by and large, to descriptions of what took place in occupied Norway, but the so called "outer front" has also strongly asserted itself in print. A host of the known Norwegians who participated in information activities abroad, whether addressing themselves to the world or to the Norwegian home front, have now published their speeches and articles Among these may be noted Parliamentary President C J Hambro, Professors Jacob S. Worm-Muller and Wilhelm Keilhau, chief of Norwegian Broadcasting in London, Toralv Oeksnevad, and many others. Books of Norway's war contribution abroad, from Africa to the Arctic Ocean, have also begun to appear. But here, the books concerned are of the straight-reporting type with interest confined to a relatively limited period. Two exceptions may be found in the publications of Max Manus, one of Norway's most able saboteurs: *Det Vil Helst Gaa Godt* (*It Usually Works*) and *Det Blir Alvor* (*This Is For Keeps*). The semi-official book describing the Norwegian-English sabotage group, *Kompani Linge*, is another excellent example of this type of literature. In the same group may be included the semi-official publication on Grini, Norway's largest concentration camp where some 20,000 Norwegians were confined during the occupation. Another book of unquestionable value is Hans Cappelen's pure documentation from a German *Nacht und Nebel* camp.

The overwhelming amount of "occupation literature" presents a wide scene. Norway's number one humanist prisoner, Professor Francis Bull, has published some of the gentle yet forceful talks which he gave to his fellow prisoners. His *Tradisjoner og Minner* (*Traditions and Reminiscences*) written on toilet paper in his solitary cell is a work which will live on in Norwegian memoir literature. Norway's outstanding painter Per Krohg has also printed the unpretentious and sensitive little talks on art which he held in the prison barracks.

While as many as eighty or ninety novels or romantic portrayals from the occupation, dealing mainly with sabotage action have appeared in Denmark, this type of literature is very scarce in Norway. A journalist, Sigurd Evensmo, was the one out of eighteen who by sheer accident avoided being executed, and instead was freed after two years in prison. On the basis of what he had experienced, he wrote *Englandsfarere* (*Englandfarers*)—which has subsequently been filmed.

While Sigurd Evensmo's novel is easily approached and appeals to the average individual, Tarjei Vesaas has written a novel which makes heavy demands upon the reader. Following a career as an author with eighteen novels to his credit, he has made his great break-through with *Huset i Mørket* (*The House in The Gloom*) which was published after the war. Through this massive, frightening work he has described what it means to live in a conquered and ravaged land.

A distinctive work has been created by Johan Falkberget, another of the older writers, the bard of mine and mountain. Up to the present, his great work has been *Christianus Sextus* a series portraying the history of the ancient Røros mines. In the first two volumes of his new trilogy *Nattens Brød* (*Bread of the Night*) he has created his own world, a world in which one can believe as fully as in all else believed to be so.

The first postwar theater season in Oslo has tended to show that only in the case of two theaters has there appeared the desire to improvise and to renovate. Det Norske Teatret opened its season with an excellent performance of Sophocles' *Antigone* with Thordis Maurstad in the leading role. Hans E. Kinck's gloom-permeated and trollish middle-age novel *Mot Ballade* (*Toward the Ballad*) provided the foundation for a remarkable dance sketch. The Theater came into being during the occupation, coagulating about a small circle of young and enthusiastic actors who were striving determinedly to perfect their style according to the system of their great "prophet" Stanislawski. Their leader was the distinctive and inaccessible lyricist Claes Gill who performed a great work during his one year as leader of this small experimental group. It has shown a unique daring, both regarding presentation and choice of stock, and substitutes for the theater school which is still lacking in Norway. Here again, the repertoire has run the gamut from Leonid Leonov's *Invasjon* (*Invasion*) to Arthur Koestler's *Skumringsbaren* (*Twilight Bar*) and the experience has had a new and reassuring effect on a public viewing an experimental theater for the first time in many years.

Graphic arts have retained a high level. When the artists met for their first large gathering following liberation, it was soon clear that nothing basically new had happened. The great manifestation of the intermediate generation's achievements will be the Oslo City Hall, where Alf Rolfsen's great fresco already appears in the foyer and where the works of Axel Revold, Per Krohg, Aage Storstein and Henrik Sørensen are nearing completion in the different chambers.

Among the younger generation, those names which had earlier achieved a fast position stand equally secure today. Kaj Fjell is painting the luxuriant and detail-rich canvasses for which he is known. Young Victor Smith is identified with the religious visionary school Two other young painters, Alf Jørgen Aas and Else Hagen, can be said to have "arrived" since the war. The huge passion-filled canvasses of Arne Ekeland show a powerful feeling.

Among the more gratifying experiences since the war is the discovery of a vast amount of talent among the young artists who attended the illegal academy under the able guidance of Stinius Fredriksen and Per Palle Storm. Thanks to the many war monuments to be erected, there will be employment opportunities never before available to Norwegian sculptors—and it now appears that the necessary talent is ready and waiting. Gustav Janson is a third sculptor belonging to this group. Both

Josef Grimeland and Niels Flakstad had secured a good standing even before the war, and since liberation have won a number of competitions. Among Norway's very youngest sculptors Kjell Rasmussen has shown a remarkable assurance in the few pieces he has turned out to date.

During the latter portion of the occupation, Norwegian music carried on an underground existence. Creative artists and composers were strongly influenced by the patriotic drive and—like Grieg—drew heavily on Norwegian folk music sources for inspiration from which to fashion their own personal styles. Outstanding among these are Harald Saeverud and Klaus Egge. Saeverud's feeling for folk melody is so strong that he might be said to create his own folk themes. His outstanding works are *Sinfonia Dolorosa*, written in memory of a friend who fell during the war, and *Kjempevisestaatten*. The composition style of Klaus Egge is based directly on the music of the curious Hardanger Fiddle, but his tonal impressions are completely modern and provide a broad area for polyphonic development. His most important compositions are *Trio for Violin, Cello, and Piano*, and *Symphony No. 1*—both of which were written during the war and clearly reflect the temperament of the period Ludvig Irgens Jensen's first symphony as well as his patriotically inspired choral pieces and romances are worthy of mention.

NUREMBERG TRIALS. Background. The Trial of the leading German war criminals at Nuremberg was an outgrowth of the generally accepted desire of civilized peoples that those persons responsible for World War II should be punished. During the war the allied nations continually received evidence of atrocities, massacres and mass executions in those countries occupied by the Axis. On October 7, 1942, President Roosevelt said:

"It is our intention that just and sure punishment shall be meted out to the ringleaders responsible for the organized murder of thousands of innocent persons and the commission of atrocities which have violated every tenet of the Christian faith."

And on November 1, 1943, a joint statement issued at Moscow by President Roosevelt, Prime Minister Churchill, and Premier Stalin indicated that those German criminals whose offenses had no particular geographical locale would be punished by joint decision of the governments of the Allies.

A United Nations Commission for the Investigation of War Crimes was created and through its efforts began the process of gathering and checking evidence of crimes from all possible sources. Soon after the war in Europe ended, negotiations on the establishment of an International Military Tribunal for the trial of war criminals were begun in London by the United States, the then Provisional Government of the French Republic, the United Kingdom and the Soviet Union. By the Agreement of August 8, 1945, signed at London, the Charter defining the jurisdiction, functions and powers of the Tribunal and prescribing the procedure for conduct of the trial became the cornerstone of this experiment in international criminal law.

In accordance with Article 5 of that Charter, the following governments of the United Nations have so far expressed their adherence to the Agreement and Charter of August 8, 1945: Greece, Denmark, Yugoslavia, the Netherlands, Czechoslovakia, Poland, Belgium, Ethiopia, Australia, Honduras, Norway, Panama, Luxembourg, Haiti, New Zealand, India, Venezuela, Uruguay, and Paraguay.

Pursuant to the Charter, each signatory nation appointed a Judge and an Alternate. The United States appointed former Attorney General Biddle as Judge and John J. Parker, Senior Federal Circuit Judge for the 3rd Circuit Court as Alternate; the United Kingdom appointed Lord Justice Lawrence of the Court of Appeals as Judge and Sir Norman Birkett as Alternate, the French Republic appointed Professor Donnedieu de Fabres as Judge and Justice Robert Falco of the Court of Cassation as Alternate; and the Soviet Union selected Major General I. T. Nikitchenko of the Red Army as Judge and Lt. Colonel Volchkov of the Red Army as Alternate. These Members and Alternates assembled in Berlin in October 1945 to prepare rules of procedure for the conduct of the trial. Lord Justice Lawrence was elected President of the Tribunal.

On October 18, 1945, the Committee of Chief Prosecutors, consisting of Robert H. Jackson of the Supreme Court of the United States acting on behalf of the United States, François de Menthon, Minister of Justice acting on behalf of the French Republic, Attorney General Hartley Shawcross acting on behalf of the United Kingdom, and General R. A. Rudenko acting on behalf of the Union of Soviet Socialist Republics, lodged an indictment with the Tribunal against twenty-four individuals.

They were: Hermann Wilhelm Goering, Rudolf Hess, Joachim von Ribbentrop, Robert Ley, Wilhelm Keitel, Ernst Kaltenbrunner, Alfred Rosenberg, Hans Frank, Wilhelm Frick, Julius Streicher, Walter Funk, Hjalmer Schacht, Gustav Krupp von Bohelen und Halbach, Karl Doniitz, Erich Raeder, Baldur von Schirach, Fritz Sauckel, Alfred Jodl, Martin Bormann, Franz von Papen, Artur Seyss-Inquart, Albert Speer, Constantin von Neurath and Hans Fritzsche.

The Charter also provided that at the trial of any individual member of any German group or organization, the Tribunal may declare that the group or organization of which that individual was a member is a criminal organization. The Committee of Chief Prosecutors also asked that the Tribunal declare criminal the following organizations:

Die Reichsregierung (Reich Cabinet); *Das Korps der Politischen Leiter der Nationalsozialistischen Deutschen Arbeiterpartei* (Leadership Corps of the Nazi Party) *Die Schutzstaffeln der Nationalsozialistischen Deutschen Arbeiterpartei* (commonly known as the "SS") and including *Die Sicherheitsdienst* (commonly known as the "SD"); *Die Geheime Staatspolizei* (Secret State Police, commonly known as the "Gestapo"); *Die Sturmabteilungen der N. S. D A P.* (commonly known as the "SA"); and the General Staff and High Command of the German Armed Forces

The individual defendants were served with the indictment immediately. The defendant Robert Ley committed suicide in prison on October 25, 1945. Because of his physical and mental condition, the Tribunal decided that the defendant Gustav Krupp von Bohlen could not be tried. On November 17, 1945, the Tribunal ruled it would try the defendant Martin Bormann *in absentia*, pursuant to Article 12 of the Charter.

Mechanics of the Trial. The actual trial itself began on November 20, 1945 at Nuremberg, Germany. Nuremberg, a city of 400,000 people before the war, had been almost totally destroyed by Allied bombing raids because of its importance as a communications center and also because of its propaganda value as the Nazi shrine. What remained of the medieval walled city was completely finished by Allied artillery aimed against an SS Division which had elected to make its final stand against American infantry within its walls. The trial was held in the reconstructed Court House.

The individual defendants were given counsel of their own choosing or, when they so requested,

were represented by counsel selected for them by the Tribunal. If they selected their own counsel these lawyers could be members of the Nazi Party, but the Tribunal selected only non-party members. Among those appointed by the Tribunal were several distinguished members of the German Bar in the days of the Weimar Republic, inactive during the Hitler regime. The indicted organizations were also represented by counsel.

The most difficult problem was the procurement of witnesses and documents. Unlike long-established courts in civilized and peaceful countries, the Tribunal was forced to create its own system for searching out and finding its witnesses and documents for the defense. Not only was the entire German communication system, such as telephone and telegraph, non-existent but there was in many areas no functioning local government at hand to locate such witnesses, many of whom had not been heard from for many years, or to produce requested documents. Without the aid of the occupation armies it would have been impossible to conduct the trial. After a witness was located, for instance, he had to be brought to Nuremberg with American Army escort and by Army transportation; the Army had to lodge and feed him in a devastated city already overcrowded with a floating German population and, when his usefulness to the trial was over, to return him once again to his own locality. It was necessary to procure secretaries, translators, and relevant law books for defense counsel.

The trial took place in four languages: English, French, Russian and German The first extensive use of "simultaneous translation," the earphone system, cut the length of the trial immeasurably. Although this system of "simultaneous translation" had occasionally been used in the past by the League of Nations for long prepared speeches, this was the first time it had been attempted in the give-and-take atmosphere of the court room. Its success was immediate. A Russian lawyer, for instance, could ask in Russian a question of a French witness. The latter would immediately hear the question in French although the English judge heard it in English, and the German lawyer, because he heard the German translation, was equipped to make his legal objections immediately.

The differences in legal systems however were more pervasive and proved more difficult. The Charter itself had provided in general for certain rules which rules were a compromise between the Anglo-American and Continental systems of law. The differences between even English and American jurisprudence were often marked and, when compared with the French, Russian and German systems, the differences were acute. For example, the art of cross-examination, which is the touchstone of Anglo-American law is unknown to the French, Russians, and Germans, and the Continental habit of continual interrogation from the bench is equally unknown in American and English jurisprudence. But, through the acceptable process of trial-and-error, the judges, prosecution lawyers and defense counsel soon evolved a workable procedure accepted and understood on all sides.

The hearing of evidence and the speeches of counsel concluded on August 31, 1946, after ten months of sessions. The Tribunal held 403 public sessions and heard 33 prosecution witnesses against the individual defendants; 61 witnesses, in addition to 19 of the defendants, gave evidence for the defense. The defense also introduced interrogatories from 143 additional witnesses. Most prosecution evidence was documentary. The documents had been captured in German Army Headquarters, German Government buildings, salt mines, Nazi castles and elsewhere. The authenticity of this evidence was never seriously questioned.

On September 30 and October 1, 1946, the Tribunal handed down its 300-page opinion. It found guilty all defendants except three and declared four of the seven indicted organizations to be criminal organizations.

According to Article 29 of the Charter, the Allied Control Council for Germany was charged with carrying out the sentences of the International Military Tribunal. The Control Council executed those defendants sentenced to death by hanging on October 16, 1946.

The Opinion of the Tribunal. *Aggressive War.* The defendants were indicted under Article 6 of the Charter which specified the international crimes of which the Tribunal had jurisdiction. Article 6(a) reads:

"Crimes against peace: Namely, planning, preparation, initiation, or waging of a war of aggression, or a war in violation of international treaties, agreements, or assurances, or participation in a common plan or conspiracy for the accomplishment of any of the foregoing"

Count One of the indictment listed the charges relating to the common plan or conspiracy to plan, prepare, initiate, and wage wars of aggression. Count Two listed the substantive crimes against peace,—the actual preparing and waging of these wars. Although some of the defendants were acquitted on the first count and convicted on the second count, the prosecution submitted the evidence on the two counts together and the opinion of the Tribunal also discussed both counts together. The opinion of the Tribunal first summarized and discussed the evidence as to aggressive war, during which it reached many conclusions and made numerous findings as to the facts. It then discussed the points of international law raised by the trial.

The Facts. After a resumé of the origin and aims of the Nazi Party, the Tribunal discussed its seizure and consolidation of power. Having come to power in 1933, the Party consolidated its holding on every phase of German life by creating the Gestapo, using concentration camps and abolishing other political parties and representative assemblies. The civil service was purged, trade unions were abolished, and the Jews driven out of the economic life of Germany. The jurisdiction of the courts was severely limited and the churches were attacked. The military was purged by the removal of conservative leaders and consolidation of the armed forces directly under Hitler himself. An air force was built and the German army expanded, as was the Navy, particularly the U-Boat arm, all contrary to the Versailles Treaty.

The first acts (not wars) of aggression charged by the indictment were the seizure of Austria and Czechoslovakia, the first war of aggression charged by the indictment was the war against Poland which began on September 1, 1939. Before reviewing these crimes against peace, the Tribunal stated:

"War is essentially an evil thing Its consequences are not confined to the belligerent states alone, but affect the whole world. To initiate a war of aggression, therefore, is not only an international crime, it is the supreme international crime differing only from other war crimes in that it contains within itself the accumulated evil of the whole."

The Tribunal found on the evidence Hitler's purpose was to unite the German people in the consciousness of their destiny. To achieve this two things were essential: to disrupt the European

order as it existed under the Treaty of Versailles, and to create a greater Germany beyond the frontiers of 1914, which, of course, required seizing foreign territory. In its opinion, the Tribunal placed great emphasis on the captured notes of four secret meetings which Hitler held with his military leaders. These notes, said the Tribunal, made it clear beyond any doubt that the Nazis deliberately planned aggressive war.

These four meetings were held on November 5, 1937, and on May 23, August 22, and November 23 of 1939.

The meeting of November 5, 1937 (the so-called "Hoszbach Conference" because the notes were kept by Hitler's personal adjutant, Lt. Colonel Hoszbach) was held at the Reich Chancellery in Berlin.

Hitler told this conference, which included defendants Goering, Raeder, and von Neurath, that Germany must have living space, that this space could be acquired only by force, and that he would seize Austria and Czechoslovakia as soon as possible. Austria was, in fact, seized six months later, in March 1938. On May 30, 1938, a military directive by Hitler declared his "unalterable decision to smash Czechoslovakia by military action in the near future." The attack on Czechoslovakia was planned in detail long before the Munich Conference and troops were ready to march, according to the German military plan captured and put in evidence, but the Munich pact was signed on September 29, 1938. Less than a month later, Hitler had already signed a military directive to seize the rest of Czechoslovakia; on March 14, 1939, the Czech President submitted to Hitler's threats and surrendered Bohemia and Moravia.

The second secret meeting on which the Tribunal relied because of the captured notes submitted in evidence took place on May 23, 1939, when Hitler announced his decision to attack Poland, though he realized this probably meant war with England and France. It was at this meeting that he said,

"There is, therefore, no question of sparing Poland, and we are left with the decision to attack Poland at the first suitable opportunity. We cannot expect a repetition of the Czech affair There will be war"

War preparations began immediately. The third meeting regarded as important by the opinion took place August 22, 1939, when Hitler spoke to his commanders in chief and the field generals. One set of notes on this meeting contained his statement:

"I shall give a propagandist cause for starting the war —never mind whether it be plausible or not The victor shall not be asked later on whether we told the truth or not In starting and making a war, not the Right is what matters, but Victory."

For the next week Hitler tried to prevent Great Britain and France from aiding Poland; finally convinced he could not, he ordered war nonetheless on September 1. The Tribunal's opinion stated:

"The Tribunal is fully satisfied by the evidence that the war initiated by Germany against Poland on September 1, 1939, was most plainly an aggressive war, which was to develop in due course into a war which embraced almost the whole world, and resulted in the commission of countless crimes, both against the laws and customs of war, and against humanity."

On November 23, 1939, Hitler held his fourth secret conference. With Poland crushed and with Austria and Czechoslovakia already incorporated into the Reich, and the war against Great Britain and France temporarily static, Hitler reviewed the past with his military commanders. He told them that every step so far taken had been according to plan; he said his intentions were aggressive from the beginning:

"Basically I did not organize the armed forces in order not to strike. The decision to strike was always in me. Earlier or later I wanted to solve the problem. Under pressure it was decided that the East was to be attacked first."

On April 9, 1940, Norway and Denmark were invaded by Germany. The Tribunal held that the conception of attacking these countries originated with defendants Raeder and Rosenberg, and that, according to the evidence, they finally convinced Hitler, originally opposed to this extension of the war. Although the defense had introduced evidence that England planned to invade Norway and therefore that Germany was compelled to attack in order to forestall this Allied invasion, the Judgment did not accept this view. It held:

"In the light of all the available evidence it is impossible to accept the contention that the invasions of Denmark and Norway were defensive, and in the opinion of the Tribunal they were acts of aggressive war"

The Tribunal also held that the invasions of Belgium, the Netherlands, and Luxemborg on May 10, 1940, were entirely without justification and were planned acts of aggressive war. This conclusion was in part based on Hitler's statement in May, 1939, to his military commanders that "Dutch and Belgian air bases must be occupied . . . declarations of neutrality must be ignored."

On April 6, 1941, German forces invaded Greece and Yugoslavia without warning. After reviewing the evidence of long military planning against these two countries the opinion said:

"It is clear from this narrative that aggressive war against Greece and Yugoslavia had long been in contemplation, certainly as early as August of 1939."

The Tribunal also found that the war against the Soviet Union was an aggressive war. Despite its non-aggression pact with the Union of Soviet Socialist Republics of August 23, 1939, Germany had begun to plan for war in the late summer of 1940, according to prosecution evidence. It attacked on June 22, 1941. "It was plain aggression."

As to the war against the United States, the opinion read:

"When Japan attacked the United States fleet in Pearl Harbor and thus made aggressive war against the United States, the Nazi Government caused Germany to enter that war at once on the side of Japan by declaring war themselves on the United States"

On its review of the evidence and findings of fact, the Judgment of Nuremberg held that the German government had committed crimes against peace by planning, preparing, initiating, and engaging in wars of aggression against ten nations, and committed acts of aggression against two others, Austria and Czechoslovakia. (The latter were not charged in the indictment as "wars.")

The Law. Although the Tribunal declared it was bound by the law stated in the Charter, since the making of the Charter was a lawful exercise of their sovereign legislative power by those nations to which Germany surrendered unconditionally, it nevertheless expressed its view on the questions of international law which had been argued by the prosecution and defense.

The opinion rejected the *ex post facto* argument by the defense, that there can be no punishment of crime without a pre-existing law. It did so on several grounds. The *ex post facto* rule is not a limitation of sovereignty, it pointed out, but a principle of justice; and to assert it is unjust to punish those who in disregard of their own treaties have attacked neighboring countries without warning is

completely untrue, since the attacker must know he is doing wrong. The Tribunal said further that the Pact of Paris (The General Treaty for the Renunciation of War, of August 27, 1928), which was binding on Germany, Italy, and Japan, had expressly renounced war as an instrument of policy, and therefore, that such a war is illegal in international law. Those who plan and wage such an illegal war thus commit a crime.

To the defense contention that the Pact of Paris did not expressly say that wars are criminal, nor did it set up courts to try war makers, the Tribunal replied that this had also been true with regard to the laws of war codified in the Hague Convention of 1907; and that for many years competent military tribunals had, without objections being raised, tried and punished individuals guilty of violating those rules of land warfare

The Tribunal then rejected as bad law the twin contentions that international law deals only with states and can not punish individuals and that such individuals are protected by the doctrine of the sovereignty of the state "Crimes against international law are committed by men, not by abstract entities." It further rejected the doctrine of superior orders as an excuse and pointed out that such a doctrine has never been accepted by international law or the law of any nation. "The true test, which is found in varying degrees of the criminal laws of most nations, is not the existence of the order, but whether moral choice was in fact possible."

In their discussion of the law on the common plan or conspiracy, however, the judges severely limited the prosecution contention that any significant participation in the affairs of the Nazi party or government from the beginning of its rise to power in 1920 was valid evidence of participation in a criminal conspiracy. The Tribunal said: "That plans were made to wage wars, as early as November 5th, 1937, and probably before that, is apparent," but in effect it refused to go back any further than 1937. It insisted in the Judgment that the conspiracy would have to be clearly outlined as to its criminal purpose; nor could the conspiracy be too far removed from the time of decision and of action if it was to be regarded as criminal. The acquittal of certain defendants on Count One—the conspiracy count—makes it clear also that the conspirators must either have participated in the planning of the wars first-hand or have had knowledge of such planning and acted thereon

War Crimes and Crimes Against Humanity. Count Three of the indictment submitted by the prosecution dealt with war crimes Count Four was concerned with crimes against humanity. Article 6 (b) and (c) of the Charter read as follows:

"(b) War Crimes. Namely, violations of the laws or customs of war Such violations shall include, but not be limited to, murder, ill-treatment or deportation to slave labor or for any other purpose of civilian population of or in occupied territory, murder or ill-treatment of prisoners of war or persons on the seas, killing of hostages, plunder of public or private property, wanton destruction of cities, towns, or villages, or devastation not justified by military necessity;

(c) Crimes against humanity Namely, murder, extermination, enslavement, deportation, and other inhumane acts committed against any civilian population, before or during the war, or persecutions on political, racial, or religious grounds in execution of or in connection with any crime within the jurisdiction of the Tribunal, whether or not in violation of the domestic law of the country where perpetrated "

The evidence sustaining Counts Three and Four as to war crimes and crimes against humanity was introduced at the same time and since the Charter provided that the Tribunal had jurisdiction as to crimes against humanity when these were committed "in execution of or in connection with any crime in the jurisdiction of the Tribunal," and since the jurisdiction of the Tribunal consisted of crimes against peace (aggressive war) and war crimes, the Tribunal lumped both counts together in its opinion both as a matter of law and also as a matter of convenience.

Many weeks were devoted to evidence relating to such crimes and the opinion states that it is impossible to review this evidence adequately. "The truth remains," it said, "that war crimes were committed on a vast scale never before seen in the history of War":

"They were perpetrated in all the countries occupied by Germany, and on the high seas, and were attended by every conceivable circumstance of cruelty and horror There can be no doubt that the majority of them arose from the Nazi conception of 'total war,' with which the aggressive wars were waged They were for the most part the result of cold and criminal calculation "

Murder and Ill-Treatment of Prisoners of War. The Tribunal found that many Allied soldiers who surrendered were executed, often as a matter of deliberate and high official policy. The "Commando Order" of October 18, 1942, was authorized by Hitler and signed by Field Marshal Keitel, the Chief of the German General Staff. The German Army issued the "Bullet Decree" of March, 1944, which provided for the execution of all escaped officers. Allied airmen were killed by the civilian population at the direct instigation of the Nazi leaders

Treatment of Soviet prisoners of war was particularly inhumane. The German Army directed that Soviet soldiers were not protected by the Geneva Convention and that all "unbearable" elements among them should be executed. The prosecution showed that Gestapo teams screened all Soviet prisoners of war for the purpose of executing any showing education; in some cases prisoners were ordered branded. They were used in 1943 as subjects for medical experiment in bacteriological warfare

Murder and Ill-Treatment of Civilian Population. The Tribunal found overwhelming evidence of a systematic rule of violence, brutality and terror in the occupied territories. On December 7, 1941, for instance, Hitler issued his "Night and Fog Decree" —all persons suspected of offenses against the German forces were to be deported to German concentration camps without warning or information to their families In Poland all male relatives of suspected saboteurs were ordered shot, and all female relatives ordered to concentration camps. The Germans continually executed hostages to punish civil disorder. Defendant Keitel ordered fifty to one hundred Russians shot for any German killed: "it should be remembered that a human life in unsettled countries frequently counts for nothing." Entire towns, as was Lidice, were destroyed in several cases. Millions of persons were destroyed in the concentration camps. They were given hard physical labor and inadequate food, clothing and shelter, and subjected to the private whim of the individual guards. Some of the camps were equipped with gas chambers and furnaces: these were used for the extermination of Jews as part of the "final solution" of the Jewish problem.

The murder and ill-treatment of civilians reached its height in the Soviet Union and Poland. Special task forces of the "SD," (called *Einsatz* groups) were sent into Russia One such group leader testified to the Tribunal that he "liquidated" 90,000 men, women and children. Keitel ordered such tactics to spread terror of the armed forces. But these mass murders and cruelties were not committed

solely to stamp out opposition. They were part of the plan to get rid of certain native populations so their territory could be colonized by the Germans. Defendant Bormann's policy in the east was summarized: "The slaves are to work for us; insofar as we do not need them, they may die." And Himmler said: "What happens to a Russian, a Czech, does not interest me in the slightest." In Poland, the intelligentsia had been marked for extermination as early as 1939.

Property as well as human beings was exploited for the German war effort, according to the Tribunal's findings. There was a systematic "plunder of public or private property." The methods varied from country to country and became more efficient with the passage of time. Raw materials and industries and agricultural products were confiscated without regard to whether the populations would starve; they did so starve in Poland and in the Union of Soviet Socialist Republics. Wholesale seizure was made of art treasures and similar articles in all the invaded countries. The specialized staffs had by July, 1944, shipped 137 freight cars and more than 4,000 cases of articles to Germany.

Slave Labor Policy. The law of the Charter making forced labor a war crime is based on the Hague Convention. At least five million persons were deported to Germany to work in industry and agriculture. Defendant Sauckel said, "Out of the five million workers who arrived in Germany, not even 200,000 came voluntarily." Conscription of labor was accompanied by drastic manhunts in the streets, in churches, and in private homes Sauckel's policy was simple "All the men must be fed, sheltered, and treated in such a way as to exploit them to the highest possible extent, at the lowest conceivable degree of expenditure" Allied prisoners of war were employed as a source of slave labor, and, during the latter stages of the war, the inmates of concentration camps were continually used. Prisoners of war were even put to work in munitions factories, loading bombers, digging trenches, carrying ammunition, and manning anti-aircraft, contrary to the Geneva Convention. Once unable to work and so useless to the German war machine, foreign laborers were transferred to special institutions where they were killed.

Persecution of the Jews. The defendant Frank testified, "We have fought against Jewry, we have fought against it for years, a thousand years will pass and this guilt of Germany will still not be erased." Although the persecution of the Jews, after the seizure of power was severe in Germany, its severity, the Tribunal found, could not compare with the policy pursued in the occupied territories. In December 1941, Goering, Himmler, and Heydrich reported that 135,000 Jews were killed in three months in the Baltic States alone. The SS Brigadier General who destroyed the Warsaw Ghetto claimed, in his report: "A proved total of 56,065 people. To that we have to add the number of those killed through blasting, fire, etc., which cannot be counted"

The most successful mass method, however, was the gathering of Jews from all German-occupied Europe into concentration camps. Those fit to work were then used as slave laborers. The unfit were destroyed in gas chambers. The commandant of one camp estimated that during his tenure of office three million persons were exterminated. The Tribunal found that the policy of the so-called "final solution" resulted, by the end of the war, in the death of six million Jews. Of these, four million had been killed in extermination institutions.

Criminal Organizations. The Committee of Prosecutors asked the Tribunal to declare criminal seven organizations.

Because of the large number who were members of these organizations—some estimates ran as high as 6,000,000—the problem of giving all interested persons a hearing presented considerable difficulty. The Tribunal appointed Commissioners to hear defense evidence relating to the organizations. For the defense, 101 witnesses were heard and 1,809 affidavits from other witnesses were put into evidence. Also submitted to the Commissioners in summarized form were 38,000 affidavits signed by 155,000 persons on behalf of the political leaders of the Nazi Party; 136,213 on behalf of the SS; 10,000 on behalf of the SA; 7,000 on behalf of the SD; 3,000 on behalf of the General Staff and High Command, and 2,000 on behalf of the Gestapo. The Tribunal itself heard in public session 22 defense witnesses for the organizations. The reports of its staff and of the Commissioners were introduced into evidence and made part of the official record The only effect of the declaration of criminality is that the criminal nature of the organization was considered proved.

Of the seven indicted organizations, the Tribunal refused to declare three criminal, and it severely limited its declaration as to the other four It excluded all persons who ceased to be members of the organizations prior to September 1, 1939, the outbreak of war.

It excluded:

> " . . persons who had no knowledge of the criminal purposes or acts of the organization and those who were drafted by the State for membership, unless they were personally implicated . . . Membership alone is not enough . . ."

Leadership Corps of the Nazi Party. The Leadership Corps was used, the Tribunal held, for criminal purposes such as the persecution of the Jews, administration of the slave labor program and mistreatment of prisoners of war The finding was limited to members of the Reichsleitung and persons who held positions as *Gauleiter, Kreisleiter,* and *Orsgruppenleiter,* and as heads of staff organizations of the Leadership Corps.

Gestapo and SD. These organizations were considered together since in the latter stages of the Nazi régime they were, for all practical purposes, organizationally the same. Both were held to be used for criminal purposes involving the persecution and extermination of the Jews, brutalities and killings in concentration camps, administration of the slave labor program and mistreatment and murder of prisoners of war and of civilians in occupied territories

The SS. The Tribunal said "it is impossible to single out any one portion of the SS which was not involved in these criminal activities." The SS had started as an elite corps to protect Hitler personally but had, by the end of the war, reached the size of 40 SS divisions and almost 600,000 troops. The Tribunal found that the SS was utilized for such criminal purposes as the persecution and extermination of the Jews, brutalities, and killings in concentration camps, excesses in the administration of occupied territories, administration of the slave labor program, and mistreatment and murder of prisoners of war.

The other three organizations the Tribunal refused to declare criminal:

The SA. This was a formation of the Party organized along military lines but after the Roehm purge it was reduced to a group of unimportant hangers-on. Although some units did commit war crimes and crimes against humanity, the Tribunal held

that its members did not generally participate in or have knowledge of criminal acts.

The Reich Cabinet. The Judgment said there was no showing that after 1937 the Cabinet ever acted as a group and, further, the number of persons was so small they could be conveniently tried as individuals. The Russian Judge dissented.

General Staff and High Command. The Tribunal, the Soviet Judge dissenting, refused to declare the General Staff and High Command a criminal organization or group for the same reasons that applied to the Reich Cabinet, saying that the 130 military leaders did not function as a "group"; also because their number was so small, they should be tried individually. But the opinion said as to these leaders:

> "They have been responsible in large measure for the miseries and suffering that have fallen on millions of men, women and children They have been a disgrace to the honorable profession of arms Without their military guidance, the aggressive ambitions of Hitler and his fellow Nazis would have been academic and sterile. . . The contemporary German militarism flourished briefly with its recent ally, National Socialism, as well as or better than it had in the generations of the past."

The Individual Defendants. The Tribunal then made its findings on the individual defendants. Each defendant was indicted on one or more of four Counts: One—The common plan or conspiracy; Two—Crimes against peace (aggressive war); Three—War crimes; Four—Crimes against humanity.

Goering. The Commander in Chief of the Luftwaffe, Plenipotentiary of the Four Year Plan and second most prominent man in the Nazi régime, he was indicted and convicted on all four counts. The Tribunal said: "He was the leading war aggressor, both as political and as military leader; he was the director of the slave labor program and the creator of the oppressive program against the Jews and other races, at home and abroad. All of these crimes he has frankly admitted." He was sentenced to death by hanging.

Hess. Hess, Deputy to the Fuehrer and his successor designate, was indicted on all four counts but found guilty only on the first two The Tribunal found he "was an informed and willing participant in German aggression against Austria, Czechoslovakia, and Poland" He was sentenced to life imprisonment. General Nikitchenko, the Soviet judge, dissented, on the ground Hess deserved death.

Ribbentrop. The Reichsminister for Foreign Affairs, he was indicted and convicted on all four counts. The Judgment said: "Ribbentrop participated in all of the Nazi aggressions from the oppression of Austria to the invasion of the Soviet Union. . . . In the administration of territories over which Germany acquired control by illegal invasion, Ribbentrop also assisted in carrying out criminal policies . . ." Death by hanging.

Keitel. Chief of the High Command of the Armed Forces, Keitel was found guilty on all four counts. The Tribunal held that, under Hitler, he planned the invasions. He signed the notorious "Commando Order" that Allied commandos be put to death when captured even though in uniform; he ordered that 50 to 100 Communists should be put to death for every attack on a German soldier. He signed the "night and fog" decree. The Tribunal said "Superior orders, even to a soldier cannot be considered in mitigation where crimes as shocking and extensive have been committed consciously, ruthlessly, and without military excuse or justification." Death by hanging.

Kaltenbrunner. Indicted on counts 1, 3, and 4, he was found guilty as to counts 3 and 4. As highest SS and Police leader under Himmler, he was responsible for the activities of the Gestapo and *SD* in their extermination of approximately 4,000,000 Jews. Death by hanging.

Rosenberg. The Party ideologist and *Reichsminister* for the occupied eastern territories, Rosenberg was found guilty on all four counts and sentenced to death by hanging. The Tribunal found he bore a large responsibility for the formulation and execution of occupation policies in the East, and was also in charge of the system of organized plunder of the invaded territories. Although he occasionally objected to the atrocities committed by his subordinates, he did not prevent their mass killings.

Frank. He was indicted on counts of 1, 3, and 4 and found guilty on only 3 and 4. As Governor-General of Poland, he was responsible for the dissection of Poland as a national entity and for the reign of terror which resulted in the murder of 3,000,000 Jews. Death by hanging.

Frick. He was indicted on all four counts but found not guilty only on Count One. Prussian Minister of the Interior, and Reich Protector of Bohemia and Moravia and an avid Nazi, he was helpful in bringing Germany under the complete control of the Party. He was responsible for the notorious Nuremberg decrees extended to occupied territories and active enforcing of them against the Jews and paving the way for the "final solution," the euphemism for their extermination. Under his jurisdiction were the insane, sick, and aged people who were systematically put to death. Death by hanging.

Streicher. One of the earliest members of the Nazi Party, *Gaulciter* of Franconia and publisher of *Der Sturmer*, Streicher was indicted on Counts 1 and 4, and found guilty on Count Four. With knowledge of the extermination of the Jews in occupied territories, he continued to write and publish in his paper the propaganda of death His incitement to murder and extermination, the Tribunal found, was a crime against humanity and he was sentenced to death by hanging.

Funk. Walter Funk was indicted on four counts and found guilty on 2, 3, and 4. The Tribunal said he had participated in the economic planning of aggressive war, particularly against Poland and the Soviet Union. Originally a press chief in the Reich government, he replaced Schacht as Minister of Economics and as president of the Reichsbank The Tribunal said he was never a leading figure in planning aggressive war and that while he had knowledge of war crimes and crimes against humanity, he did not participate. He was sentenced to life imprisonment.

Schacht. Indicted only on counts 1 and 2, Schacht was found not guilty. Although he played a vigorous role in the rearmament program, the opinion stated that the case against Schacht depended on the inference that he knew of Hitler's plans for aggressive war. . . . "On this all-important question, evidence has been given for the prosecution, and a considerable volume of evidence for the defense. The Tribunal has considered the whole of this evidence with great care, and comes to the conclusion that this necessary inference has not been established beyond a reasonable doubt" The Soviet Judge dissented. Schacht, who was Minister of the Reichsbank, was eventually replaced by Funk and after the bomb plot against Hitler, was confined in a concentration camp until the end of the war. The Tribunal also found that he participated in plans to get rid of Hitler.

Doenitz. He was indicted on Counts 1, 2, and 3,

was found guilty on counts 2 and 3. Although he did not become Commander in Chief of the German Navy until 1943, the Tribunal found that Admiral Doenitz did wage aggressive war from the beginning, as commander of the U-boat arm. Although found guilty of waging unrestricted submarine warfare, the Tribunal did not sentence him on this charge since the British and American Navies also waged unrestricted submarine warfare. He was sentenced to 10 years imprisonment.

Raeder. Admiral Raeder, indicted on Counts 1, 2 and 3, was found guilty on all three. The Tribunal found that the invasion of Norway was his conception; and that he planned and waged aggressive war and was guilty of war crimes, including passing on to his subordinates the "commando order." He was sentenced to life imprisonment.

Schirach. Youth leader of the Nazi Party and *Gauleiter* of Vienna, Schirach was tried on Counts 1 and 4 but convicted only on Count Four. He participated in the deportation of Jews from Vienna while aware they would be used as slave labor. He was sentenced to 20 years imprisonment.

Sauckel. Although indicted on all four counts, Sauckel, who had over-all responsibility for the slave labor program, was convicted only on counts 3 and 4. He stated that, of the five million persons deported and used as slave labor in Germany, not more than 200,000 were volunteers. Death by hanging.

Jodl. Tried on all four counts, Jodl who was the chief of the Operations Staff of the High Command of the Armed Forces, was convicted on all four and sentenced to death by hanging. In the strict military sense he was the planner He planned the aggressive wars, signed orders which led to war crimes and crimes against humanity, including supplements to the "commando order." The Tribunal said "participation in such crimes as these has never been required of any soldier and he cannot now shield himself behind a mythical requirement of soldierly obedience at all costs as his excuse for commission of these crimes"

Papen. Franz von Papen, indicted under counts 1 and 2, was Minister to Vienna and later Ambassador to Turkey. He was found not guilty, the Soviet Judge dissenting. The Tribunal said "Under the Charter, von Papen can be held guilty only if he was a party to the planning of aggressive war. There is no showing that he was a party to the plans under which the occupation of Austria was a step in the direction of further aggressive action, or even that he participated in plans to occupy Austria by aggressive war, if necessary."

Seyss-Inquart. Arthur Seyss-Inquart, who became Reich Governor of Austria after Anschluss, then Deputy Governor of Poland and later Reich Commissar for the occupied Netherlands, was tried on all four counts and found guilty on 2, 3, and 4. The Tribunal found he was ruthless in applying terrorism and in sending Jews to concentration camps and that he committed other war crimes. He was sentenced to death by hanging

Speer. Indicted on all four counts, Speer, who was *Reichminister* for Armaments and War Production, the economic czar of Germany, was convicted on counts 3 and 4. He had, said the opinion, no knowledge or participation in initiating wars of aggression but was convicted because of his participation in the slave labor program. Although he had no administrative responsibility for the program, he did put pressure on Sauckel to get him more slave labor for his industries. He was sentenced to 20 years imprisonment.

Neurath. He was indicted and convicted on all four counts. Although he resigned as Foreign Minister in 1938, he had knowledge of the planning for aggressive wars; nevertheless, he retained formal relationship with the Nazi régime. He became Reich Protector for Bohemia and Moravia and, although the oppressive measures carried out there were done by other persons, he did remain until 1941. He was sentenced to 15 years imprisonment.

Hans Fritsche. Indicted on counts 1, 3, and 4, Fritsche, who was head of the Radio Division at the Propaganda Ministry, was found not guilty on all three counts, on the ground that he did not incite the German people to atrocities and that he had no knowledge of the planning for aggressive war The Soviet judge dissented.

Bormann. Indicted on Counts 1, 3, and 4, Bormann, who replaced Hess as Deputy to the Fuehrer and later became Head of the Party Chancellery and had great influence on Hitler, was tried in absentia because the evidence as to his death was not conclusive. He was found guilty on Count Four and sentenced to death by hanging. He was active in the slave labor program and other war crimes against humanity but since he came to power late in the régime, had no knowledge of the planning for aggression.

The Significance of Nuremberg. There appears to be unanimity of opinion that the significance of the Judgment of Nuremberg was the Tribunal's holding that planning, preparing, initiating, or waging aggressive war is an international crime. This is the first judicial formulation of the proposition that aggressive war is criminal and will be so treated.

The final verdict on the Judgment of Nuremberg awaits the historians. Before the trial began and during the course of the proceedings, there was considerable criticism by able and disinterested persons, as well as by those whose motives were not so disinterested. Much of that criticism seems to have abated since the opinion was announced. Informed criticism had not been directed to the trial and conviction of individuals for war crimes and crimes against humanity, since it had long been accepted in international law that these crimes could be punished by properly constituted military tribunals. Nor, rather surprisingly, has there been much note taken of the novel experiment of declaring entire organizations criminal. Criticism was primarily directed at trying and convicting persons for preparing, initiating, and waging aggressive war. It is probable that argument on this point will continue for some years. The former Secretary of State and Secretary of War, Henry Stimson, who has great standing as an international lawyer, recently commented:

> "International law is still limited by international politics, and we must not pretend that either can live and grow without the other. But in the judgment of Nuremberg there is affirmed the simple principle of peace—that the man who makes or plans to make aggressive war is a criminal A standard has been raised to which Americans, at least, must repair; for it is only as this standard is accepted, supported, and enforced, that we can move onward to a world of law and peace" (*Foreign Affairs*, January 1947)

In his report to President Truman, Judge Francis Biddle said:

> "The conclusions of Nuremberg may be ephemeral or may be significant. That depends on whether we now take the next step It is not enough to set one great precedent that brands as criminal aggressive wars between nations . .
>
> I suggest, therefore, that immediate consideration be given to drafting such a code (of international criminal law) to be adopted after the most careful study and consideration by the governments of the United Nations."

JAMES ROWE, JR.

NYASALAND. A British protectorate in southeastern Africa, grouped with British Central Africa territories. Area, 37,374 square miles. Population (1940 estimate), 1,686,045. Capital, Zomba. The protectorate is administered under the Colonial Office by a governor and commander in chief, assisted by an executive council (nominated) and a legislative council (nominated). Nyasaland has been granted £2,000,000 from the Colonial Development and Welfare Fund.

The country is self-supporting in agriculture except for sugar and wheat. Tobacco is raised extensively and forms a high proportion of total exports. Tea, coffee, cotton, pulses, groundnuts and tung oil are also exported. Imports (£1,682,940) in 1944 were slightly larger than exports (£1,502,154) in the same year.

OPINION RESEARCH CENTER, National. An institution established in 1941 by the Field Foundation, Inc., of New York City, in association with the University of Denver, as the first nonprofit, noncommercial organization in the United States devoted to ascertaining public opinion During 1946 the Center's research was concentrated largely upon securing attitudes in the United States toward (1) the fundamental causes of war, (2) the United Nations, (3) control of the atomic bomb, (4) world trade and tariffs, (5) the responsibilities of government, business, and labor in solving the economic problems of the postwar period, and (6) minority problems in the United States. Detailed reports covering public opinion in these areas are being published by the Center.

A special study undertaken this year reported the public's attitudes toward such civil rights as freedom of speech and freedom of press, as compared to the public's information about the Bill of Rights. Another special report, based on a study of the atomic bomb, its implications to future peace, and the industrial use of atomic energy, analyzed public information and attitudes, and also presented the opinions of experts in the field. NORC's latest report, concerning Japan and the postwar world, covers public opinion on many aspects of this all-important question and also presents selected expert opinion for comparison. Other reports and reprints by NORC staff members and associates concern such subjects as the public's understanding of tariff and trade problems, the development of an NORC cross-section, and analyses of certain ethnic aspects of white attitudes toward Negroes. Attitudes regarding the loyalty of the Japanese and Japanese-Americans have been studied and reported.

Part of the Center's activities are devoted to discovering, testing, and perfecting new techniques, methods, and devices for ascertaining the status of public opinion. In this connection the Center serves as an organization available to research workers in academic fields for the study of such problems as interviewing techniques, analysis of data, and the interpretation of survey results. As part of the program to further develop opinion research as a science, NORC, in July, 1946, sponsored the first national conference of opinion experts.

Another purpose of the Center is to review and analyze the results of surveys made by other polling organizations. The publication, *Opinion News*, fulfills this function. Designed for the use of business men, government officials, educators, librarians, and others who must follow closely the trends of public opinion, *Opinion News* summarizes the findings of all the leading polling and public opinion surveying organizations, both in the United States and abroad.

The National Opinion Research Center has made surveys, or worked in cooperation with a number of other nonprofit and commercial organizations, including several agencies and departments of the U.S. Government. Acting Director: Gordon Connelly. Office: University of Denver, Denver 10, Colorado. Eastern office: 280 Madison Ave., New York 16, New York.

PALAU ISLANDS. A group of islands (143° 10′ E. and 6° 50′ N.) in the western Carolines of the Japanese Pacific Islands: The chief islands of the group are Palau proper, or Babeldoab (143 sq. mi.), Angaur (3 sq. mi.), and Korror (3 sq. mi.). Total area, 184 square miles. Civil population (1938), 12,798. Angaur supplied 20 percent of Japan's phosphate needs—the total deposits of the island being estimated at 2,400,000 tons. The laterite deposits contain a large amount of bauxite. There are many good anchorages for ships and a large harbor at Malakai. During September, 1944, United States armed forces captured the islands of Palau and Angaur. After the defeat of Japan all the islands passed under United States control. On November 6, 1946, the United States requested that the islands be placed under United Nations trusteeship with the United States as administering authority.

PALESTINE. A part of the former Turkish province of Syria, governed by Great Britain as Mandatory Power since Sept. 29, 1923. Area: 10,429 square miles. Capital: Jerusalem.

The People. The number of inhabitants in Palestine can only be estimated. There were probably more than 1,800,000 at the end of 1945, divided approximately as follows: Moslems, 1,100,000; Jews, 600,000; Christians, 140,000. During the last twenty-five years the population of Palestine has increased 300 percent due to the large-scale immigration by both Jews and Arabs and to the high birth rate of the latter. The Moslems and most of the Christians are Arabs and speak Arabic as their native tongue. Hebrew is widely used among the Jews, though many of those who migrate to Palestine from Europe have to learn it as an entirely new language. The adaptability of the ancient Hebrew tongue to modern uses has been one of the interesting by-products of Zionist colonization.

There are still many nomads or semi-nomads, chiefly in the south. Due to the tremendous urban development of recent years, nearly half the population now lives in towns or cities. The larger cities, with their estimated populations, are: Tel Aviv, 175,000; Jerusalem, 160,000; Haifa, 130,000, Jaffa, 100,000. Tel Aviv is an all-Jewish city, while half or more of the inhabitants of Haifa and Jerusalem are Jewish.

In 1943–4 the Government operated 422 schools for the Arabs, and 327 non-government ones. Education for Moslem girls is making rapid strides. There were also 161 private Moslem schools. In the Hebrew educational system there were 551 schools, including a number of secondary and technical institutions. Jewish private schools numbered 324. The Christian communities operated 181 schools. On Mount Scopus near Jerusalem is the Hebrew University, which is one of the foremost centers of higher learning in the Middle East.

The Economy. Most of Palestine presents a picture of barren hills and treeless steppes. The succession of peoples who have lived in the country since the beginning of historic time have denuded its once

extensive resources of soil and forest. Today this process is gradually being reversed. The influx of Jewish colonists and capital has led to a remarkable agricultural and industrial revival, in which the Arab population has also widely shared. The results of Jewish settlement on the land are especially noticeable on the maritime plain, the Emek (or the valley of Esdraelon) and in the northern Jordan valley. Some 410,000 acres were in Jewish possession in 1943. Further acquisitions were virtually prohibited by the White Paper of 1939.

The volume of the country's agricultural production is shown by the following figures: 13,000,000 cases of oranges and 2,000,000 cases of grapefruit were exported in 1938–9 (exports dropped during the war but are picking up again); milk production in 1943, 120,000,000 litres; average output of olive oil, 7,000 tons. Other crops for 1944 were: wheat, 57,456 tons; barley, 41,482 tons; fresh non-citrus fruit, 201,561 tons; vegetables, 192,887 tons. In 1943 there were 242,945 cattle, 244,062 sheep, 325,376 goats, 29,736 camels and 107,736 donkeys. Many other products could be mentioned by way of illustrating the considerable diversification attained by the country's agricultural and pastoral economy. Reforestation has also been undertaken on a small scale.

The manufacture of many small items has increased greatly, due to the immigration of skilled workmen and artisans from Europe (for statistics see YEAR BOOK for 1944, p. 457). There are extensive oil refineries in Haifa at the western terminus of the pipeline from Iraq. The vast mineral resources of the Dead Sea are exploited by the Palestine Potash Company, which in 1944 produced 105,050 metric tons of potash.

In 1944 imports (principally foodstuffs, textiles and machinery) were valued at £36,223,716 and exports were £14,638,464. Haifa has the only modern harbor in Palestine. At Jaffa and Tel Aviv vessels of any size must anchor out and be serviced by lighters. The railway mileage is 367 kilometers of standard gauge and 144 kilometers of narrow gauge. The completion of the line from Haifa through Beirut to Tripoli during the war put Palestine into direct rail communication with Istanbul. The road system of Palestine has been greatly improved and extended under British administration.

Government. Palestine became a Class A Mandate under the League of Nations in 1923. Whether this regime is to be replaced by a United Nations trusteeship is as yet undecided. Palestine is administered by a British High Commissioner, who is assisted by various officials—British, Jewish, and Arab. The country has been divided into six districts, each under a district commissioner.

In governing Palestine the British have found it advisable to give considerable autonomy in certain matters to the Moslem, Jewish, and Christian communities The religious affairs of the Moslems are controlled by the Moslem Supreme Council, and questions involving their personal status are under the jurisdiction of the Sharia courts. The Jewish community is organized under an elected assembly and a general council (*Va'ad Leumi*). The community operates its own schools and has courts with jurisdiction over certain matters of personal status. Much the same situation exists for the several Christian communities.

There is also a Jewish Agency, a quasi-governmental body, which concerns itself with the establishment of the Jewish National Home, promised in the Balfour Declaration of Nov. 2, 1917. Finally, there is a regular hierarchy of courts instituted by the Mandatory Power to sit in criminal cases and in such civil suits as do not come before the religious tribunals. The police force is composed of British, Arab, and Jewish elements. Since the formation of Jewish underground terrorist groups, Britain has also had to use her armed forces to help maintain order. The official languages are English, Arabic, and Hebrew.

Events, 1946. The political situation deteriorated steadily throughout the year. It opened with sporadic violence on the part of Jewish terrorists and with countervailing police raids, arms searches and curfews by the mandatory authorities. The Palestine railways were a common target of terrorist action. On January 12 a train was held up between Haifa and Jaffa and a payroll of $140,000 taken. Five days later, a British police official was killed during a flareup of bombing and shooting. The Zionist resistance forces completely took over Tel Aviv for six hours on February 24 during the funeral of four men killed in an attack on British forces. Two days later, Jewish raiders destroyed 22 R.A.F. planes. Further attacks on British soldiers, resulting in the death of at least seven of them, led to a house-to-house search for terrorists in Tel Aviv on April 26, during which some 1,200 suspected persons were rounded up Major-General A. J. H. Cassels, commander of the military district containing Tel Aviv, declared the whole Jewish community there responsible for the killing of his men and reimposed a curfew. A number of irresponsible British soldiers, seeking revenge for their comrades' deaths, smashed several Jewish houses in a nearby village.

The cause of Zionist bitterness was the virtual closing of the doors of Palestine to further Jewish immigration. On January 2 the Chief Secretary of the mandatory regime confirmed the report that all visas allowed under the 1939 *White Paper* had been issued, though some four or five thousand immigrants bearing them were yet to arrive. This, of course, came at a time when scores of thousands of Jews were clamoring for escape from Central Europe and for whom Palestine offered about the only available haven. According to General Frederick Morgan of UNRRA, there was in Central Europe a well-organized movement to get Jewish displaced persons started on the road to Palestine despite the absence of legal permits for entrance there. His charges were vehemently denied, but the fact remained that Jewish refugees continued to congregate in certain Mediterranean ports, especially in Italy, to embark for Haifa, sometimes in decrepit and unsanitary vessels British officials estimated in November that there were 100 craft engaged in this traffic

One of the principal questions to be investigated by the joint Anglo-American Committee of Inquiry, appointed late in 1945 (see YEAR BOOK for 1945, p. 438) was that of further Jewish immigration into Palestine. In order to preserve the status quo during the committee's sittings, the High Commissioner, General Sir Alan Cunningham, announced on January 30 that the government was "provisionally" going to permit the entry of 1,500 Jews a month despite the refusal of the Arab Higher Committee to acquiesce The latter body had already, on January 9, rejected any concessions and had called for the end of the mandate Now it protested to the United Nations against the High Commissioner's decision.

At this moment (February 7) one of the Arabs' most trusted leaders, Jamal el Husseini, cousin of the Grand Mufti, returned from several years' involuntary exile in Southern Rhodesia On the 11th he declared that Arabs would appear before the

Anglo-American Committee only if all their leaders were liberated and returned to Palestine.

The Committee convened at the State Department in Washington on January 4 and began taking testimony from witnesses. Hearings were suspended on the 14th and reopened in London on the 25th. On March 2 the Committee was in Cairo, later transferring to Palestine and sending subcommittees to various parts of the Middle East. The hearings ended on March 26 after the Zionists and the Arabs had once again reiterated their well-known conflicting and uncompromising positions. On one point they were agreed: that if British troops were withdrawn from Palestine, they could take care of themselves.

The Committee's report was released on April 30. It contained ten major recommendations, including the immediate admission of 100,000 Jewish victims of Fascist and Nazi persecution. As for the political future of Palestine, the Committee stated that:

"In order to dispose, once and for all, of the exclusive claims of Jews and Arabs to Palestine, we regard it as essential that a clear statement of the following principles should be made (1) that Jew shall not dominate Arab and Arab shall not dominate Jew in Palestine; (2) that Palestine shall be neither a Jewish State nor an Arab State, (3) that the form of government ultimately to be established shall, under international guarantees, fully protect and preserve the interests in the Holy Land of Christendom and of the Moslem and Jewish faiths. Thus Palestine must ultimately become a State which guards the rights and interests of Moslems, Jews and Christians alike, and accords to the inhabitants, as a whole, the fullest measure of self-government, consistent with the three paramount principles set forth above

"We have reached the conclusion that the hostility between Jews and Arabs and, in particular, the determination of each to achieve domination, if necessary by violence, make it almost certain that, now and for some time to come, any attempt to establish either an independent Palestinian State or independent Palestinian States would result in civil strife such as might threaten the peace of the world We therefore recommend that, until this hostility disappears, the government of Palestine be continued as at present under mandate pending the execution of a trusteeship agreement under the United Nations . .

"We recommend that the mandatory or trustee should proclaim the principle that Arab economic, educational and political advancement in Palestine is of equal importance with that of the Jews, and should at once prepare measures designed to bridge the gap which now exists and raise the Arab standard of living to that of the Jews; and so bring the two peoples to a full appreciation of their common interest and common destiny in the land where both belong "

Other recommendations favored removal of restrictions on land transfers, the economic development of both the Jewish and Arab communities, the reform of education, and the suppression of terrorism and violence.

President Truman expressed satisfaction with the report, particularly with the recommendation that 100,000 Jews be admitted to Palestine forthwith. The Zionists were likewise pleased at this recommendation, but were far from happy at being denied a Jewish state.

It was the Arabs who took the most positive stand against the report. On May 2 the Arab Higher Committee sent a letter to the British Cabinet threatening to resume the "national struggle" if the recommendations were effected. The following day saw a strike of the Arabs in Palestine, Syria and the Lebanon. On the 8th Jamal declared that the Arab Higher Committee had cabled Stalin for his aid in preventing the report from being implemented. On the 10th Under-Secretary of State Dean Acheson informed the representatives of five Arab states that the United States would adhere to the late President Roosevelt's pledge to consult both Arabs and Jews in regard to Palestine. On May 15 the Arab Higher Committee asked for the dissolution of the Jewish Agency and on the 24th it demanded the end of Jewish immigration, the withdrawal of foreign troops and the formation of an "independent Arab state of Palestine."

The official British response to the publication of the report was somewhat mixed. Prime Minister Attlee, addressing the Commons on May 1, made it clear that Britain would not carry out the recommendations singlehanded. Other British sources pointedly asked whether the United States would open its own doors to Jewish refugees or would send troops to Palestine to aid in disarming the Jewish underground forces, said to number 60,000. Britain already had 100,000 troops in the Holy Land and was fearful that any increase would drive the Arabs into the arms of Russia. In mid-May the American and British governments began consulting the Arab states, as well as both Arab and Jewish unofficial groups, to see what measures could be taken to follow up the report. On June 11 President Truman created a special Cabinet committee to help him formulate a Palestine policy. It consisted of Secretaries Byrnes (State), Snyder (Treasury) and Patterson (War). A day later, Foreign Secretary Bevin, addressing the annual Labour Party Conference at Bournemouth, said that if he were to let 100,000 Jews enter Palestine he would have to put another division of troops there, "and I am not prepared to do that." He also made a few caustic remarks about the unwillingness of the United States to take any of the Jewish refugees over whom it expressed such concern.

Meanwhile the British authorities in Palestine exacerbated Arab opinion, without placating the Zionists, by lifting the monthly quota of immigration certificates for Jews from 1,500 to 2,000. This small increase was wholly inadequate to provide certification for the shiploads of illegal immigrants that were put in detention camps as fast as they arrived. This unauthorized influx of Jews naturally angered the Arab leaders. There seems, however, to have been some difference of opinion as to how best to meet the danger. The Husseini Party, which early in May won five out of the eight seats in the Jerusalem Municipal Council, was for strong action. Apparently the five other Arab parties wanted a less strenuous policy, since they were reported on May 29 to be abandoning the Higher Committee to form a Higher Front which would submit the case to the United Nations.

At this juncture the Arab League held a Council meeting at Bludan in Syria, and Haj Amin el Husseini, the Grand Mufti of Jerusalem, escaped from France and made his way to Egypt (see PAN ARAB AFFAIRS).

A new series of terrorist outbreaks was marked by the blowing up of five bridges across the Jordan River on June 16. The British authorities at once organized a vast man-hunt for the perpetrators. On the following day fires and explosions wrecked bridges, railway lines, shops, and many other structures, by way of demonstrating to Mr. Bevin that it would take more than another division to keep the Jewish refugees out of Palestine. On the 18th two British officers were shot in Jerusalem and five were kidnapped at Tel Aviv. Two of the latter were soon released, but the other three were kept as hostages by the Irgun Zvai Leumi until July 4—during the trial of thirty-one of their members accused of carrying firearms illegally: thirty were given sentences of fifteen years and the other one, of life. By June 29 the British campaign to locate the leadership of the Haganah led them to seize the Jewish Agency building and its contents (including files) in Jerusalem and to arrest a number

of its leaders, such as Moshe Shertok. Altogether about a thousand Jews were detained.

These measures evoked a call on July 1 from some 250 Jewish leaders for a passive war on British authority in Palestine. Meanwhile, the search for arms caches in Jewish centers and settlements had turned up a large supply, which however probably represented only a small part of the munitions and weapons hidden by the Jewish resistance movement. On the same day Prime Minister Attlee made a lengthy statement on Palestine in the House of Commons, in which he asserted that the government had evidence of a connection between the Jewish Agency and the terrorists, and between the Irgun Zvai Leumi and the Haganah. The Agency denied this, but on July 24 the government published a *White Paper* purportedly proving the existence of these links.

On July 17 the Jewish population of Palestine, with notable solidarity, staged a one-day sympathy strike for the men held in the detention camps. Five days later, the Irgun blew up a wing of the King David Hotel in Jerusalem, killing 91, wounding 45 and leaving 29 missing. About half of the government staff, which was using the hotel as its headquarters, was wiped out. This naturally led to new searches for arms and round-ups of suspected terrorists

By July 25 it was reported in London that the Anglo-American joint Cabinet Committee was proposing the partition and federalization of Palestine. According to this plan the Zionists would gain autonomy in a narrow belt of land running along the coast as far north as Haifa, then cutting inland to include the Valley of Esdraelon and finally turning north again along the upper Jordan valley to include the Galilee and Huleh Lake areas. The Arab districts would comprise the rest of the country, minus Jerusalem, Bethlehem and the arid Negev triangle in the south. Jaffa would constitute an Arab enclave in the Jewish zone, in order that the Arabs might have a port of their own. The long, crooked, narrow Jewish-controlled strip would contain about 1,500 square miles, compared with the 2,600 square miles suggested in the partition plan broached by the Peel Commission before World War II. This 1946 plan did not propose the creation of Jewish and Arab states, for the central executive power of the British was to be strong, thus leaving relatively little autonomy to the federal units.

At the same time the British government revealed plans for a conference to be attended in London by Arab and Jewish leaders. The latter said they would not come if Arab consent were made a condition for permitting the 100,000 refugees to enter Palestine. The Palestine Arabs, presumably on the orders of the Grand Mufti, then residing in Alexandria, rejected the invitation on August 8. They later sought to get the Mufti accepted by the British as a delegate, and again (August 31) refused to attend when London turned down this request.

When the partition plan became known in the United States, it was widely criticized and Mr. Byrnes said that it was a British, not an American, proposal. A statement issued by the White House on July 2 had already indicated that the United States was prepared to shoulder the technical and financial responsibility for transporting the 100,000 Jews from Europe to Palestine. On July 31, Herbert Morrison told the Commons that Britain would accept the Joint Committee's recommendations as a basis for negotiation only if it were sure of American cooperation in putting them into effect. A two-day debate ensued during which the Tories decried further delay in settling the problem.

The Conference was opened in London on September 10 by Mr. Attlee, who asserted that Britain would not insist on federation but hoped for some form of Arab-Jewish compromise. Since neither the Palestine Arabs nor the Zionists would attend, the conferees consisted of British officials and representatives of the seven Arab states. From the start the latter refused to consider partition—as did the Zionists, for that matter—and reiterated their old demand for a democratic Arab state, in which they offered the Jews the permanent status and guaranteed rights of a minority on condition that Zionist immigration be stopped once and for all. The deadlock was soon apparent, and on October 2 the Conference was adjourned to December 16 In a message to Mr. Attlee on October 4, President Truman expressed regret at the failure of the Conference to provide for the admission of the 100,000 Jews. In the end the conference was postponed once again, this time until 1947.

The continued arrival of unauthorized Jewish immigrants finally obliged the Palestine authorities after August 12 to prevent their landing by force and to ship them to detention camps in Cyprus. In enforcing this rule persons were not infrequently killed or hurt. The Irgun answered this "blockade" on August 14 by calling on the Haganah and Sternists to form a Jewish Army and take over the rule of Palestine Another source of exasperation was added on the 16th when eighteen Zionists were sentenced to death for participating in the destruction of the Haifa railway shops, though these sentences were commuted on August 29. A revival of terrorist activities resulted in the reimposition of the curfew, but this did not stop the attacks and the killings.

By now the Arabs, to whom a firmer policy had been imparted by the Mufti's arrival in Egypt, were thoroughly angry over Jewish terrorism and redoubled their efforts to organize and equip military forces of their own. Early in the fall a "shadow" Arab government was set up in Palestine under Jamal el Husseini and directed from Egypt by the Mufti. In order not to have to depend any longer on financial help from the Arab states, it was planned to impose taxes on the Arabs in Palestine to support this extra-constitutional regime. The Arabs marked November 2 with a one-day strike against the Balfour Declaration.

A new wave of Jewish violence—sporadic but apparently well organized and often leading to fatalities—got under way in mid-October. In addition to the usual sabotage of railways, mining of roads, bombing of buildings, assassination of officials and the like, the long-dormant conflict with the Arabs over the land was renewed. Eight "detained" leaders of the Jewish Agency were finally freed on November 5, but the acts of violence continued. Between July and October 31 Britishers were killed, and the tempo of killing speeded up during November. There was a moratorium on violence during the time the World Zionist Congress was in session at Basel—December 9 to 24—but it was resumed thereafter. On December 29 the Irgun kidnapped and flogged a British major and three sergeants.

The Basel Congress met under none too happy auspices Dr. Chaim Weizmann, elected presiding officer of the sessions, restated the case for a Jewish state but deplored terrorism. The arguments over partition and the policy of cooperating with Britain were long and bitter, and so split the Congress that it was unable to elect a new president of

the Zionist Executive to replace Weizmann. An increased budget for the Jewish Agency was adopted —$50,000,000 for the coming year. Figures were also released showing that, despite the restrictive regulations of 1940, some 100,000 acres had been purchased by Zionist enterprises in Palestine since 1939, for which purpose $42,000,000 had been raised.

Despite the unsettled condition of public security, the economic life of the country managed to rock along. Trade with the United States rose in value, much of it represented by the diamond trade. In September the Palestine Citrus Marketing Board arranged for the sale to Great Britain of 6,500,000 boxes of fruit from the current season's harvest. Added to the amounts destined for Ireland and the Continent, some 10,000,000 boxes were expected to be sold, giving the industry a profit for the first time since the war began. However, several good seasons were needed in order that the growers might pay back the £4,000,000 which had been advanced to them by the government when export markets had been curtailed by the war.

On the Arab side, plans were formulated for creating a land bank, capitalized at a million pounds, to assist Arab landowners in resisting the lure of high prices offered by the Zionists.

Early in January the Palestine government granted a concession to the American-owned Trans-Arabian Pipeline Co. to construct a pipeline across the country en route from the oil fields of Saudi Arabia to the Mediterranean Sea.

ROBERT GALE WOOLBERT.

PALMYRA ISLAND. An atoll in the Central Pacific, belonging to the United States. Lying 1,109 air miles southwest of Honolulu and 1,513 miles northeast of Pago Pago in American Samoa, it is an important station on the Hawaii-Samoa air route. Land area, 1½ square miles. Population (1940 census), 32. The United States Navy Department which has jurisdiction over the island, converted it into a naval air station.

PANAMA. A republic of Central America. Area: 28,575 square miles, excluding the Canal Zone of 553 square miles. Population: 631,637 (1940). Capital: Panamá.

Most of the surface of Panama is covered by low mountains and hills; a gap between the mountain ranges provides the lowland through which the Canal passes. The climate is mostly hot and humid, but on the Pacific side of the mountains it is drier and more healthful. The mean annual temperature is 80 degrees

The People. Fifty-eight percent of the total population of Panama is mestizo, 17 percent of European descent, 15 percent Negro, and 9 percent Indian. The largest concentration of population is in the vicinity of the Canal Zone and in the north-central region. The largest cities are: Panamá, 111,893; Colón, 44,393; and David, 9,222. The small foreign population forms the dominant economic group.

Spanish is the official language. Roman Catholicism is the predominant religion.

According to the census of 1940, 64.7 percent of the population over 10 years of age (excluding Indians) is literate. In 1942 there were 74,039 students enrolled in 670 elementary schools; 8,407 students in 29 intermediate schools; and 857 in the University of Panama. During 1945 the Panamanian Government provided funds for 86 new schools.

National Economy. The economic life of the country is influenced to a large extent by the Panama Canal. Major economic activities are associated with the passage of goods through the Canal, and in recent years construction activities in the Canal Zone and provision of commercial services for military and civilian personnel have played an important part in the economy of the rest of Panama. Agriculture is the chief occupation. Bananas are the principal export crop, and cocoa and abacá are also raised for export. Rice, corn, coffee, sugar, tobacco, beans and fruits are grown for local use. Cattle raising, rubber production, and exploitation of forest products are also important.

Industrial development has been limited by the small size of the local market. Sugar and rice are processed, and shoes, soap, beverages, hats, furniture, and clothing are manufactured.

Foreign Trade. Exports during 1945 were valued at $4,507,137, compared with $2,809,982 in 1944; this reflected increased shipments of bananas and abacá. Total exports of bananas in 1945 amounted to $2,000,000; of abacá, $1,121,000. Rubber exports to the United States in 1945 totaled about 750,000 pounds.

Panama's imports for 1945 were valued at $45,648,125, of which 66 percent originated in the United States. Manufactured goods and foodstuffs were the chief imports.

Government. Panama is a centralized republic of 7 provinces and 1 intendencia. The Constitution of 1940 provided for a unicameral National Assembly of 32 members, to meet annually for four months, beginning on Jan. 2 The President and members of the Assembly were elected directly and concurrently for 6-year terms. The president was aided by a Cabinet of 6 members. President Ricardo Adolfo de la Guardia dissolved the Assembly in December, 1944, and called elections for a Constituent Assembly, which convened in June, 1945, and selected Enrique A. Jiménez Provisional President.

Events, 1946. Provisional President Enrique A. Jiménez's term of office was extended to September 30, 1948 early in the year by the Constituent Assembly, which changed itself into a Legislative Assembly on February 28 The Legislative Assembly also voted in a new Constitution which prohibited United States nationals from opening retail business in Panama and permitted other foreigners to open businesses only if 80 percent permanent employment was given to Panamanians and residence was established in Panama instead of in the Canal Zone

A three-months session of the Assembly was opened on May 15 by President Jiménez who reported that under his administration since June 15, 1945, an extensive public works program had been inaugurated and good relations had been carried on with the United States with regard to wartime military bases in Panama. A considerable portion of his report was devoted to the activities and supporters of Dr. Arnulfo Arias, deposed President (1940–1941) of Panama. After an attack on the Colón police station on December 21, 1945 in which five people were killed and several wounded, Dr. Arias and many of his followers were imprisoned. The President charged the followers of Dr. Arias with "unjustified agitation of the masses"

The issues surrounding the status of United States wartime military bases provided Panama with an important international problem. Under the terms of the original agreement, the United States was authorized to occupy 83 Panamanian bases until September 1. Sixty of the bases had been returned prior to the termination date. Al-

though the United States reportedly requested a conference to discuss a new defense agreement with Panama, President Jiménez on September 3 said that no agreement for the occupation of defense sites by the United States would be negotiated until the sites occupied were returned.

On September 12 both nations issued a joint statement declaring that the question of bases would be worked out through friendly negotiations. United States reluctance to withdraw from several of the bases hinged on the desire to provide adequate defenses for the Panama Canal. The joint statement said that both Governments had agreed to consult "on the most effective means for assuring the defense of the Panama Canal" with respect to the basic treaty of 1936 and Defense Sites Agreement of 1942. During December a solution to the problem of bases appeared imminent with the conference between Panama's Minister of Foreign Relations, Ricardo J. Alfaro, and United States Secretary of State, James F. Byrnes, in Washington.

Panama's annual share of $133,333 to the United Nations Relief and Rehabilitation Administration would not be paid for 1946, President Jiménez said in November, because UNRRA was not willing to accept payment in coffee at a price agreeable to Panama. Panama's budget for the last six months of 1946 contained no allotment of funds for the international organization.

The entire Cabinet, with the exception of Minister of Foreign Relations Alfaro, resigned on December 2 after a clash had arisen between the Minister of Public Works and Education during a meeting to determine the site of a trade school. The resignations were unexpected; originally the Cabinet meeting had been called to discuss the Government economy plan.

Panama's high cost of living prompted the Government during December to consider plans for the establishment of Government stores which would sell such items as rice, cooking oil, sugar, lard, and flour at prices commensurate with the incomes of the working classes. The Retail Businessmen's Association was invited to the conference to determine if the merchants themselves would lower prices on necessities. If reduction in prices could not be effected the Government threatened to open retail stores. In an effort to save $5,000,000 in the 1947 budget the Government had scheduled for January 1, 1947, reductions in the salaries of all Federal employees.

The status of women in Panama was advanced in late December when the Government announced that women would be included in the jury lists. This marked the first time in Panama's history that women were eligible for jury duty.

PANAMA CANAL ZONE. A strip of land crossing the Isthmus of Panama and extending about five miles on each side of the center line of the Canal and three marine miles beyond low water mark in the Atlantic and Pacific oceans. By the Hay-Bunau Varilla Treaty concluded in 1903, the Republic of Panama granted to the United States in perpetuity the use, occupation, and control of the Canal Zone for the construction, maintenance, operation, sanitation, and protection of the Canal. The treaty provided for the payment to Panama of a lump sum on the exchange of ratifications of the treaty, and also an annual payment (which is an annuity and not rental) beginning nine years after the date aforesaid. A new treaty was signed on March 2, 1936, which makes various amendments and additions. Total area of the Canal Zone is 553.12 square miles, including 190.94 square miles of water. Balboa Heights is the administrative center.

Population. The 1940 United States census reported 51,827 persons in the Canal Zone of whom 32,856 were white. According to the annual police census of the Canal Zone taken between March 1 and 31, 1946, the population was 48,352, of which 19,620 were Americans. On June 28, 1946, the force employed by The Panama Canal and the Panama Railroad Company numbered 5,239 on the "gold" roll (chiefly Americans) and 14,899 on the "silver" roll (chiefly natives of the tropics).

Panama Canal Finances. For the fiscal year ended June 30, 1946, there was a net revenue from tolls and other sources of $52,970.49. The net capital investment in the Canal, after depreciation, as of June 30, 1946, was $660,895,798.50, including $128,991,063 interest on funds borrowed to construct the Canal up to the formal opening on July 12, 1920.

Economic Conditions. The Canal Zone is in effect a U.S. military reservation whose principal industry is the maintenance and operation of the Panama Canal; operation of the auxiliary enterprises necessary to provide adequately for the needs of shipping and of the Canal operating forces; and government of the Canal Zone, populated by American civilians, native or tropical workers and their families, and United States Army and Navy defense forces. Transits in the fiscal year ended June 30, 1946 totaled 9,586, the greatest number of any year in the history of the Canal.

Government. A civil government was authorized by Congress by the Panama Canal Act of 1912. Administration rests in the hands of a Governor appointed by the President, by and with the advice and consent of the Senate, for a period of four years, but in wartime it is by Executive Order placed under the authority of the Commanding General of the Panama Canal Department, U.S.A. Subject to such superior authority the scope of government goes much beyond the functions of the government in the other territories. The Governor's duties can be compared to those of an executive in the management of a vast business organization.

Events, 1946. During the United Nations discussions of trusteeship territories, Panama voiced objection to the United States report on its non-self-governing territories that included the Canal Zone. Claiming Panamanian sovereignty over the Canal Zone, Dr. R. J. Alfaro, Foreign Minister of Panama, said that the Canal Zone was not "leased" to the United States and the United States annual payment of $250,000 in gold currency was in lieu of all taxes and not compensation for a lease. The United States recognized Panama's sovereignty over the Canal Zone, but submitted the territory in its report because of the responsibility inherent in its exclusive administration.

The Board of Consultants for the Isthmian Canal Studies which met in Balboa Heights, Canal Zone, during November announced that the original twenty-two routes and plans for the improvement of the Panama Canal had been reduced to eight. Col. James H. Stratton, supervisor of the Panama Canal revaluation project, estimated that by February, 1947, more than half of the remaining eight may have been eliminated by further study.

Outside of Panama, two canal possibilities included the Nicaragua route and the Atrato route, which originates in Columbia. Panamanian possibilities were the San Blas, Caledonia, and Chorrera-Lagarto alignments. The most advantageous choice is the Chorrera route which could be exca-

vated almost entirely "in the dry," a large financial gain over dredging, and would not interfere with the operations of the existing canal.

To permit the largest Navy airplane carriers to pass through the Canal locks, the Navy Department proposed widening the locks to more than 140 feet and building a third set of locks. Between July 1, 1940 and June 30, 1946, about $75,771,090 of the $227,000,000 authorized by Congress has been spent on this project.

PAN AMERICAN ACTIVITIES. Modifications in the Inter-American System to adjust it to the postwar situation, and coordination of the regional system with the world organization, were among the principal problems confronting the American Republics in their international relations during 1946.

Reorganization of Inter-American System. At the Inter-American Conference on Problems of War and Peace held at Mexico City in 1945 provision was made for a comprehensive reorganization of the Inter-American System to adapt it to the changed international situation following the war. Although it was necessary to await the Ninth International Conference of American States which was scheduled to meet at Bogotá, Colombia, for many of the contemplated modifications, some were put into effect at least provisionally during the year.

In accordance with the resolution adopted at Mexico City several governments appointed special ambassadors to represent them on the Governing Board of the Pan American Union. Heretofore, such representation had devolved upon the diplomatic representatives in Washington, and the Secretary of State of the United States. The Mexico City resolution sought to make such special appointments obligatory, but following consultation with the governments it was decided to leave it optional until the Ninth International Conference of American States could give further consideration to the matter. Special ambassadors were appointed by Argentina, Brazil, Colombia, Mexico, Peru, the United States, and Uruguay. Guatemala and Haiti also named special representatives, but both were superseded by the diplomatic representatives of the respective countries in Washington.

The Governing Board also put into effect that provision of the Mexico City resolution prohibiting the re-election of the Chairman for the immediately succeeding term. Although annual elections have been held since 1923, the Secretary of State of the United States had always been elected to the office. For the year 1946 the Ambassador of Brazil, Dr. Carlos Martins, was elected Chairman and following the appointment by Brazil of a special ambassador on the Board, he was succeeded by the Vice Chairman, Dr. Guillermo Sevilla Sacasa, Ambassador of Nicaragua. At elections held on November 6, 1946, the special ambassador of Colombia, Dr. Antonio Rocha, was elected chairman for 1947.

The Inter-American Economic and Social Council, likewise provided for in the resolution adopted at Mexico City, completed its organization and began to function at the Pan American Union during the past year. It is composed of representatives appointed by the 21 governments and is charged with the study of economic and social problems affecting the nations of the Western Hemisphere. The Hon. Spruille Braden, Assistant Secretary of State and Representative of the United States, served as Chairman of the Council during 1946. On November 6, 1946, the Council elected as its Chairman for 1947 the representative of Costa Rica, Dr. J. Rafael Oreamuno.

Postponement of Conferences. The application of other features of the contemplated reorganization of the Inter-American System was delayed by the postponement of several important conferences which had been scheduled for the past year.

The Inter-American Conference on the Maintenance of Continental Peace and Security, scheduled to meet at Rio de Janeiro, was twice postponed owing to the unwillingness of the Government of the United States to sign a mutual defense pact with the government of Argentina. The purpose of the meeting is to give permanent form to the principles of mutual assistance contained in the Act of Chapultepec signed at Mexico City in March 1945. The Act is of a provisional nature, intended to operate only during the period of the war emergency. The Rio de Janeiro conference was originally planned for October 1945 and then postponed to April 1946. At the time of the second postponement the Governing Board of the Pan American Union entrusted to the Brazilian Government the selection of the date, but as of the end of the year no announcement of a new date had been made. In anticipation of the meeting eight governments have submitted proposals with reference to the provisions to be incorporated in a continental treaty of mutual assistance.

The Ninth International Conference of American States also was postponed. It had been planned for Bogotá, Colombia in December 1946, but was postponed and is now scheduled for December 1947. The principal items on the agenda of the conference will relate to the reorganization of the Inter-American System.

In preparation for the Bogotá conference several important projects were drawn up during the year. The Governing Board of the Pan American Union drafted a project of Organic Pact of the Inter-American System, a Declaration of the Rights and Duties of American States, and proposals for the establishment of an Inter-American Council of Cultural Cooperation and an Inter-American Council of Jurists. The Inter-American Juridical Committee formulated a coordinated Inter-American Peace System and a draft Declaration of the International Rights and Duties of Man. These were distributed among the governments of the 21 republics, and on the basis of the comments received definitive projects will be prepared and submitted to the Ninth Conference.

The Inter-American Technical Economic Conference, scheduled for the Pan American Union in April 1946, was also postponed This action was taken partly because of the establishment of the Inter-American Economic and Social Council. In view of the postponement the Council was requested to undertake a study of the topics appearing on the conference agenda.

Relations with World Organization. All the American Republics are members of the United Nations and are taking an active part in the work of the world organization and its various agencies.

During the past year the Governing Board of the Pan American Union considered the question of the relations that should exist between inter-American agencies and similar agencies operating on a world level. In the field of international peace and security the charter signed at San Francisco specifically recognizes "the existence of regional arrangements or agencies for dealing with such matters relating to the maintenance of international peace and security as are appropriate for regional action." With respect to regional forms of cooperation in social, economic and related fields the San Francisco conference decided that it would be un-

necessary to include any specific provision of this sort in the Charter.

On this point the Governing Board at the session of November 6, 1946, adopted the following principles intended to govern such relations. (1) The specialized inter-American organizations that function within the Inter-American System shall establish the closest cooperative relations with similar world organizations; (2) on entering into agreements with international organizations of a world-wide character, specialized inter-American organizations shall maintain their identity and position as an integral part of the Inter-American System; (3) the Governing Board of the Pan American Union shall intervene whenever it may deem it necessary in the negotiation of any agreement between the specialized organizations of the Inter-American System and similar organizations of the world system.

L. S. ROWE.

PAN ARAB AFFAIRS. The year saw a strengthening of the political influence of the Arab League and, through it, a tightening of the bonds of Arab solidarity. Unquestionably the predominant factor in impelling the Arab countries toward closer cooperation was the danger of a Jewish state in Palestine. It is not inaccurate or unfair to say that without political Zionism, the Arab League would not have become an effective instrument

A boycott of Jewish business and products was supposed to get under way in all the Arab League countries at the first of the year, but was not effective everywhere or at once. The governments of several of them adopted measures to halt the flow of Jewish-made goods into their territories Syria declared it treason to smuggle Palestine goods into the country.

At the opening of the new permanent headquarters of the Arab League in the Monasterli Palace at Cairo, the Egyptian Prime Minister, Nokrashy Pasha, read a joint statement on behalf of King Farouk and King Ibn Saud, then on a visit in Egypt (see ARABIA), asserting that Palestine must remain an Arab country.

The third regular meeting of the Council of the Arab League opened in Cairo on March 25. Most of the matters that came before it were of a technical nature. Among other things it approved the creation of an Arab bank in Palestine, to be capitalized initially at one million pounds, which would provide funds for keeping Arab-owned lands from being sold to Jewish colonists or Zionist organizations (see PALESTINE). At the final sitting of the Council, on April 13, it approved a definition of common Arab citizenship for submission to the member states. If adopted it would mean in effect that the inhabitants of these seven countries would have a double loyalty, which in time might prepare the way for an over-all Arab nationalism. Such a common citizenship would also facilitate freedom of movement among the member states and provide a common equality under the law for the nationals of one in the territory of all the others. At the same time the Council decided not to discuss the delicate question, raised by the Lebanon, as to whether Trans-Jordan's new treaty with Great Britain gave the former real independence (see TRANS-JORDAN).

The recommendations of the Joint Anglo-American Committee on the Jewish problem and its reflex in Palestine, published at the end of April (see PALESTINE), of course enraged Arabs throughout the Middle East and brought on a rash of protests, strikes, and even threats to abrogate existing treaties with Britain. In this crisis, two extraordinary meetings were called among the Arabs. The first, convening near Cairo on May 28, comprised the rulers of the seven Arab states or members of their families. Present were two kings (Egypt and Trans-Jordan), one Regent (Iraq), two royal princes (Saudi Arabia and the Yemen), and two presidents (Syria and the Lebanon). Though brought together by the urgency of the Palestine Problem, the conference also had on its agenda these other points: reconciliation of the Hashimite and Saudi families, the revision of the Anglo-Egyptian Treaty, the attitude of the Great Powers toward the Arab states, and the representation of the latter at the coming peace conference in Paris. After a two-day session, it was announced on the 30th that the conference, in a remarkable display of unity, had unanimously agreed: to oppose the reopening of Palestine to Jewish immigration; to favor the independence of Libya and of all Arab countries, and to recommend the completion of Egyptian independence.

The second conference called under the impact of the Anglo-American Committee report was that of the Arab League, meeting in extraordinary session at Bludan in Syria on June 8, simultaneously with an announcement by the French Foreign Ministry that the Grand Mufti, supposedly being detained in France, had left the country. Naturally observers saw more than a coincidence in the timing of the Mufti's departure, and the British Foreign Office gave signs of extreme annoyance. For a number of days the Mufti's whereabouts was shrouded in mystery. Several apparently circumstantial reports placed him in Syria, where he was said to be guiding the discussions at Bludan. Only after several days did it become known that he had flown to Egypt and was living there more or less as a guest of the Egyptian government. On July 5 he was reported to have taken a villa in Alexandria. Though supposedly forbidden by the Egyptian authorities to engage in political activities, it was soon evident that the Mufti was up to his ears in intrigue and was in effect directing the Arab Higher Committee of Palestine by remote control.

At Bludan the delegates voted unanimously on June 12 to push for the creation of a United Nations trusteeship in Palestine to replace the League of Nations mandate. They also ordered the Arab Higher Committee and the Higher Front in Palestine (see PALESTINE) to dissolve and be replaced with an over-all executive committee, with the Mufti as its spiritual head. Following the conference, the Arab League sent notes to the British and American governments in regard to the Palestine situation The note to Washington challenged the legal right of the United States to intervene in the Holy Land and warned that if the Zionists continued to arm, the Arabs "would not stand by with their arms folded."

On behalf of the other Arab states, the Egyptian Foreign Minister on June 20 addressed a note to the British government inviting the latter to negotiate with the League members "an arrangement destined to end the present situation in Palestine and to install a new regime in accordance with the provisions and the aims expressed in the Charter of the United Nations." A copy of this note was sent to the United Nations Secretariat on June 25, and was published on July 23.

The London Conference, called by the British government in the hope of getting the Palestine Problem threshed out around the table, was attended by delegates of the Arab states on the spe-

cific understanding that they came with completely free hands. The conference met on September 10, but without representatives of the Palestine Arabs or Zionists. A deadlock soon became apparent and on October 2 the conference was adjourned until December 16, and later until 1947 (see PALESTINE). Meanwhile the Arabs were becoming growingly exasperated with Jewish terrorism in Palestine and with what they regarded as Britain's ineffectual attempts to cope with it. They also resented repeated statements by President Truman in favor of opening Palestine to 100,000 Jewish refugees from Europe.

A regular meeting—the fourth—of the Council of the Arab League began at Cairo on November 18. The Mufti was not invited to attend, the Palestine Arabs being represented by Jamal el Huseini. The Palestine question, as usual, was uppermost in the delegates' minds, but there was little new to be said or done, and the inclination seemed to be to await the deliberations of the adjourned meeting of the London Conference. The Council voted to extend recognition to the Indonesian Republic and to call upon France to liberate the ageing Moroccan Riffian leader, Abd-el-Krim, as well as the deposed Bey of Tunis, Mohammed Moncef Pasha.

ROBERT GALE WOOLBERT.

PANTELLERIA. An Italian island (32 sq. mi; pop., 9,000) in the Mediterranean 45 miles from the coast of Tunisia and 62 miles from the Sicilian coast Strategically situated to dominate the shipping route between the eastern and western Mediterranean, it was fortified by Italy during 1935–37. The island has two small ports On June 11, 1943, the island was surrendered to Allied armed forces.

PAPUA. A territory (formerly called British New Guinea) of Australia, comprising the southeastern part of the island of New Guinea (87,786 square miles) and the islands of the d'Entrecasteaux, Louisade, Trobriand, Conflict and Laughlin groups, also Woodlark Total area, 90,540 square miles. Population (1940 estimate), 339,000, of whom 1,822 were Europeans Capital, Port Moresby.

Government. The civil government is headed by an Administrator appointed by the Australian Government. The Administrator is assisted by an executive council of 5–9 members and a legislative council made up of the executive councillors and 5 unofficial members Papua was under Japanese invasion from December 1941 to December 1942, and civil government was suspended from February 1942 to October 1945 A bill for the full restoration and improvement of civil administration in Papua was introduced in the Australian House of Representatives in July 1946 (see AUSTRALIA).

Life of the People. Coconuts, rubber, and sago are important products. Gold and other minerals are mined and exported. Schools are in the hands of Christian missions aided by government grants.

PARAGUAY. A republic of South America. Area: 60,990 square miles. Population: 1,141,332 (1945) Capital: Asunción.

The eastern third of Paraguay consists of a plateau of 1,000 to 2,000 feet elevation, to the west of which is an area of low flat plains and hilly uplands. Westward from the Paraguay River stretches the vast alluvial plain of the Gran Chaco, reaching an elevation of between 800 and 1,000 feet along the Bolivian border. The climate is sub-tropical, with considerable variation in the weather and in the amount and seasonal periodicity of rainfall.

Population. The population of Paraguay is composed almost entirely of persons of mixed European and Indian descent. The west-central region around Asunción is the most densely populated; northwestern and eastern areas are sparsely settled The largest cities are: Asunción, 100,000; Villarrica, 50,000; and Coronel Oviedo, 30,000.

Both Spanish and Guaraní are spoken in Paraguay, but Spanish is the official language. Roman Catholicism is the predominant religion.

Recent surveys indicate that most of the population over 10 years old have at least an elementary knowledge of reading and writing. In 1944 there were 173,274 students in 1,248 primary schools; about 9,926 in 70 intermediate schools, and more than 1,000 students in the National University.

National Economy. Paraguayan economy is agricultural. Cotton is the leading export crop. Some tobacco is exported, and forest products, yerba maté and quebracho are exported in quantity. Sugar and rice are the chief crops grown for domestic consumption, with limited production of coffee and beans Agricultural production figures for 1944 (in kilograms) are: quebracho, 47,266,433; sugar, 9,891,600; rice, 8,243,410. Maté production reached 16,657 metric tons

Cattle-raising is an important industry; there are now some 5,000,000 head of livestock in the country. In 1944, about 513,200 head of cattle were slaughtered, about 69 percent for home consumption Total slaughterings in 1944 by the three frigorificos (principally for production of canned corned beef) totaled 161,024 head, of which 64,265 were imported

There is little manufacturing in Paraguay, but industrial activity showed a general increase in 1944. Leading industries are· textiles, glass, and fiber hats Foodstuffs, beverages, tobacco products, leather goods, paper manufactures, etc., are made in small quantities

Foreign Trade. Paraguayan exports in 1944 were valued at 42,300,000 guaranies (19 percent above 1943 exports) and exceeded imports by 11 percent The value of export groups in gold reserve pesos for 1944 were: animal products, 10,483,556; forest products, 7,336,740, and agricultural products, 5,473,620 Principal exports for 1944 (in kilograms) totaled· quebracho, 27,273,701; canned meat, 14,491,724; cotton, 6,801,631; maté, 4,193,516; tobacco, 2,511,536, whole hides, 442,997; and grain, 201,737. Lumber exports (chiefly logs and beams) amounted to 6,864 metric tons in 1944; corned beef exports totaled 14,496 metric tons.

Imports were valued at 38,100,000 guaranies in 1944, an increase of 3 percent over 1943 Foodstuffs, cotton and metal manufactures, and machinery were among the leading items imported

Government. Paraguay is a centralized republic of 12 departments. Under the Constitution of 1940 a unicameral Congress of 40 members is provided for The President is directly elected for a 5-year term, and is eligible only once for reelection. The President is aided by a Cabinet of 8 ministers. A plebiscite on Feb 15, 1943 extended the term of President Higinio Morínigo for 5 years

Events, 1946. The first signs of defection in the administration of President Higinio Morínigo occurred on June 9 when a brief report from Asunción said that two officers and three enlisted men of the Paraguayan First Cavalry Division had been killed in a clash. The Government relieved Col. Victoriano Benitez Vera, commander of the Division, of his command. On June 11 it was reported that Col. Benitez Vera had fled to the Brazilian Embassy.

The background of the clash showed that Presi-

dent Morinigo had been in conflict with Benitez Vera, who headed the Paraguayan military clique and allegedly coveted ambitions to lead the Government. When the Colonel was in Buenos Aires attending President Perón's inaugural ceremonies, President Morinigo assumed personal command of two regiments and surrounded the Colonel's unit. Benitez Vera immediately flew by plane from Argentina, but arrived too late to avoid the surrender of his unit and his own downfall.

As revolutionists in Bolivia successfully took control of their Government and killed President Gualberto Villarroel on July 21, President Morinigo indicated his desire to step down from the Presidency. At the same time, the Cabinet resigned and the National Press Association in Asunción reported that the President had invited into the Cabinet members of the leftist National Republican (Colorado) party and the Febrerista party, which had been recently restored to legal status. In later reports the President denied any intention of resigning. By August 1 the President made further concessions to political freedom by legalizing the Communist party and publicly announced that he desired to remain in power only until free elections could be held. He also said that decrees were in preparation to give a third major party, the Liberals, legal rights. The Liberal party traditionally was associated with the military, but the President said that the army was prepared to stay out of politics.

Among the political exiles who returned to Paraguay was former President José P Guggiari, favorite of the Liberal party Guggiari was considered an enemy, however, by the university students because of a clash between students and Guggiari's police in 1931 when demonstrating students were shot down. In a parade commemorating Guggiari's return in early September, students and Liberals met in a riot that was dispersed by the police. The result was two dead and thirty-nine injured. Public activities of the Liberal party were suspended for one month by President Morinigo On September 25 activities of the Communist party were suspended for one month by the Ministry of the Interior on the grounds that the party had "not collaborated as a legitimate opposition."

During a meeting to resolve a Cabinet crisis, the Government claimed that an attempted coup by "anarchist elements" had been suppressed. A demonstration by university students was broken up by gunfire. By December 14 the political crisis appeared over with the Colorado and Febrerista parties accepting the army's demand that they cease quibbling and support President Morinigo until a constitutional convention was called.

PARIS PEACE CONFERENCE. The Paris Peace Conference—the first full-fledged peace conference following World War II—was held in Paris from July 29 to October 15. It deliberated on the peace treaties with Germany's five ex-satellites: Italy, Hungary, Rumania, Bulgaria, and Finland.

Preparatory Work Done By the Council of Foreign Ministers. At the Potsdam Conference which ended on August 2, 1945, President Truman, Prime Minister Attlee and Generalissimo Stalin agreed that a "Council of Foreign Ministers," composed of the Foreign Ministers of the United States, Great Britain, and the Union of Soviet Socialist Republics as well as of France and China, should "continue the necessary preparatory work for the peace settlements"; first, the Council was to frame, "with a view to their submission to the united nations," draft treaties for the allies of Germany.

At the first session of the Council (London, September 11 to October 2, 1945), the Soviet government proposed that the preparation of these treaties be entrusted, as had been done in the case of the armistices concluded in 1943 and 1944, to those countries which had defeated a given enemy State. Secretary of State Byrnes accepted the suggestion under the condition that the draft treaties thus prepared be submitted to a peace conference composed of the five Big Powers, all European members of the United Nations, and those non-European members of the United Nations "which supplied substantial military contingents in the war against the European members of the Axis." At the Moscow Conference of the Foreign Ministers of the United States, Great Britain, and Russia (December 16 to 26, 1945), it was, in essence, agreed that the treaties were to be prepared, for Italy, by the United States, France, Great Britain, and the Union of Soviet Socialist Republics; for Hungary, Rumania and Bulgaria, by the United States, Great Britain and the Union of Soviet Socialist Republics; and for Finland (with which the United States had not been at war), by Britain and Russia Once the drafts were ready, a 21-nation conference was to be held in order to consider them, composed of China, France, Great Britain, the United States, the Union of Soviet Socialist Republics, and "all members of the United Nations which actively waged war with substantial military force against European enemy States," namely, Australia, Belgium, Byelorussian Socialist Soviet Republics, Brazil, Canada, Czechoslovakia, Ethiopia, Greece, India, the Netherlands, New Zealand, Norway, Poland, the Ukrainian Socialist Soviet Republics, Union of South Africa, and Yugoslavia. This formula (somewhat different from the one originally suggested by Mr. Byrnes) was elaborated in a note sent by the United States, on behalf of the Big Three, to France in January 1946. The note stated that the Peace Conference would hold discussions as broad as possible, and that the Foreign Ministers (of the Big Powers) when afterwards writing the final texts of the five peace treaties, would give fullest consideration to the recommendations of the Peace Conference.

It was decided at Moscow to convene the Peace Conference within four months—"not later than on May 1, 1946." However, the Council of Foreign Ministers itself did not reassemble until the end of April 1946, and needed more time than had been anticipated to find solutions for the main controversial issues. Hence, the second session of the Council (London, April 25 to May 16) was followed by a third (Paris, June 15 to July 12). By the beginning of July, the Big Four represented on the Council of Foreign Ministers had reached agreements on the principal points and had laid down their agreements in five draft treaties, for Italy, Hungary, Rumania, Bulgaria, and Finland, respectively. The draft treaties dealt with territorial questions (including the hard-won compromise on the Italian-Yugoslav frontier and on Trieste), demilitarization, reparations, and various other subjects The draft treaties also showed the areas on which the Big Four had not yet agreed, e g. the governmental set-up of Trieste, and certain economic clauses in the treaties with the Balkan States, such as the future regime of the Danube, and the indemnification of Allied citizens and corporations for war damages and for losses sustained by nationalization since the end of the war. Having, after arduous discussion, achieved agreement on numerous other points, the Council decided to deal with these remaining questions after, and on

the basis of, the deliberations of the Peace Conference.

Now it was possible to convene the full Conference, i.e. to call in the other Allies, because it had been agreed in Potsdam in 1945 that the Big Powers should achieve unanimity at least on the larger issues, before the draft treaties would be formally laid before the other nations.

The Task of the Conference. The Paris Peace Conference had to prepare, rather than to make decisions. It followed three sessions of the Council of Foreign Ministers, the proposals of which formed the basis for the discussions of the Conference; and the Conference was, in turn, followed by another session of the Council of Foreign Ministers (November 4 to December 12) at which, with due consideration to the recommendations of the Peace Conference, the final treaties were drafted. In addition to giving opportunity to China and the 16 other Allies to scrutinize, to alter, and to complete the drafts prepared by the Big Four, the Conference permitted the ex-enemy countries concerned to make their voices heard. In other words, the procedure for preparing these peace treaties consisted of three stages of which the Peace Conference was the second; and the whole procedure can be described as follows: A partnership composed of a few big and almost a score of smaller partners wished to settle its accounts with 5 opposite parties; first, the big partners made draft proposals; then the big partners called in their other partners and, as the occasion warranted, also the opposite parties for discussion and completion of these drafts; and, afterwards, sat down again amongst themselves to write the final documents, taking into account the wishes of their smaller partners and, to some extent, of the opposite parties.

As has been the case throughout history whenever a coalition of victorious nations had to translate victory into a peace settlement, delicate questions, involving not only the relations between the victors and the defeated, but the relations among the victors themselves, had to be solved. A further and special characteristic of the 1946 Peace Conference was that the enemy countries had, during the later stages of the war, "changed sides" and had, by the time of the Conference, developed ties of friendship, but of markedly differing degrees, with the various victor states, while at the same time other members of the coalition, owing to their particular experiences during the war, were slower in "forgiving." This was especially noticeable in the case of Italy, which, as an ex-enemy state that since 1943 had valuably helped the Allied cause, found herself often supported at the Conference by the United States and Britain against claims from Allied Yugoslavia, and in the case of Bulgaria, which, as one of the weakest of Hitler's former satellites and one that was at war with the Soviet Union only for a day or two, was backed by the Soviet Union against the war-time ally, Greece. Thus, the alignments in Paris were less clear-cut and more complicated than a straight division between victors and defeated would have suggested.

Participants and Size of the Conference. The Conference was, from its beginning, attended by all 21 nations mentioned in the Moscow agreement of December 1945. The delegations of most countries were headed by their Foreign Ministers. But during the first few days, the place of Mr. Ernest Bevin, British Foreign Secretary, was, owing to an indisposition of Mr. Bevin, taken by Prime Minister Attlee. Canada was represented by its Prime Minister, Mr. Mackenzie King, Greece's chief delegate was her Prime Minister, Mr. Tsaldaris. General Smuts, Premier of the Union of South Africa, made an important speech to the Conference on October 7, immediately prior to the final vote-taking. The only head of state present was Mr. George Bidault, Premier-President and Foreign Minister of France. The chief associates of Mr. Byrnes were Senator Tom Connally, Democratic chairman of the Foreign Relations Committee, and Senator Arthur H. Vandenberg, spokesman for the Republican Party in foreign affairs. The highest-ranking members of the British delegation, under Mr. Bevin, were Mr. Philip J. Noel-Baker, Minister of State, and the newly-appointed Defence Minister, Mr. Albert V. Alexander. The chief deputy of Mr. Vyachaslev M. Molotov, Russia's Foreign Minister, was Mr. Alexander Vishinsky, Vice-Foreign Minister. All delegations, and particularly those from the larger countries, were accompanied by government officials, experts, consultants, interpreters, etc. Even the Committee meetings, several of which would usually take place simultaneously, were attended by 200 to 400 persons, including delegates, advisors, interpreters, secretaries, stenographers, newspaper reporters, and admitted guests. After the end of the Conference, the International Information Service stated that there were altogether 1,385 official participants at the Conference, including the secretarial staff, approximately 2,000 journalists and 1,040 guards and similar personnel. The total cost of the Conference, which was borne in its entirety by France (the host country), amounted to 136,250,000 French francs, of which 97 million were spent for materials and 28 million for wages and salaries. On particularly "heavy" days, the Conference used as much as 5 tons of paper.

During the earlier part of the Conference, it was decided to allow four countries which were not originally invited, namely, Albania, Cuba, Egypt, and Mexico to give their views on the Italian treaty. The admission of Albania (whose government was, at the time of the Conference, not recognized by the United States, Great Britain, and a number of other participants) gave rise to a vivid discussion. Austria was permitted to give her views on all five treaties.

The Conference was held at the historic Palais Luxembourg which had suffered some damage—since repaired—during the days of the liberation of Paris in August 1944 The plenary meetings took place in the "Hall of Clemenceau" where the French Senate used to convene. It seats 500 delegates in a large, elaborately decorated Amphitheatre, overlooked by a high rostrum. The Conference languages were French, English, and Russian. Hence, each speech had to be translated into the other two languages. In fact, when, e.g. Mr. Alcide de Gasperi, the Prime Minister of the Republic of Italy, addressed the assembly in Italian, three translations were needed.

The Paris Peace Conference was probably one of the most hard-working international gatherings ever held. Officials would often attend two or three meetings per day, totaling 16 to 18 hours of discussion. Many meetings broke up only in the early morning hours; some lasted, with short intervals, for 24 consecutive hours and even longer. Nevertheless, time had to be found for the receptions and parties which were tendered by the host country and by various delegations and which are always important parts of an international conference because they provide opportunities for smoothing out controversies over the dinner table.

The Conference First Debated Its Own Rules of Procedure. At the end of the session of the Council of

Foreign Ministers which preceded the Conference, Mr. Molotov proposed that, before sending out the invitations to the Conference, the four Ministers should agree in advance on the procedure which the conference was to follow. Thereupon, on July 9, the Council decided to suggest—but not to prescribe—to the Peace Conference, when it opened on the 29th of July, the following rules: the plenary conference should refer the detailed discussions to 9 commissions, one for each of the five ex-enemy countries, and four "functional" committees—one on military, one on legal, and two on economic matters. On the first five commissions, those States should be represented which had actually declared war on the country with which the respective committee was to deal, but France was to sit, though without vote, in all of them. The committees should decide by two-thirds majority; but each committee member whose views had not obtained such majority, should still be entitled to present his proposals to the full conference and to ask for a decision on it. The full conference should also reach its decisions by two-thirds votes, except on procedural matters where a simple majority would suffice. The four Ministers agreed "whenever possible" to support unitedly the adoption of the chief features of these proposals by the Peace Conference, but reserving the right to support any amendment passed by the latter.

On the very opening day of the Conference, a technical suggestion by the Chairman, M Bidault, produced an immediate protest from Mr. Herbert V. Evatt, Australia's Minister for External Affairs. Criticizing the role of the Big Four in drafting the treaties, he asserted that his and other nations had the same right to participate in the final decisions on the treaties. "I do not want there to be any doubt about that." He then demanded the simple majority rule for all deliberations of the Conference, so that any 11 votes should be sufficient to make formal recommendations to the Council of Foreign Ministers.

On the next day, July 30, Mr. Byrnes made his first address to the Conference: "At long last, we are assembled here to consider the first treaties of peace to be made since the military defeat of the Axis conspiracy to dominate the world by force. . . . Let us not, who fought on freedom's side, forget how near the shadows we came. . . . Of course, after six long years of exhaustive war, it is difficult for each nation not to think that its own ideas of peace must prevail. . . . However difficult may be the path of inter-nation cooperation, the United States is determined not to return to a policy of isolation. . . . We must work together until we find solutions which, while not perfect, are solutions which can be defended." Then, the Secretary of State strongly stressed the importance of the preparatory work of the Council of Foreign Ministers: "If the principal allied States had not attempted to harmonize their views before this conference, I hesitate to say how many months this conference would have to go on. . . . It is not easy for any sizable deliberative body . . . to function effectively without having the measures which it is to consider drafted in advance and drafted with a view of meeting the views of those whose support is deemed essential." Since the proposals of the Big Four represented "a very real effort to reach a common understanding," the United States would stand by them unless the Conference should "by a two-thirds vote of the Governments here represented make a contrary recommendation" —then the United States would strive to have such recommendation adopted by the Council.

Thus, Mr. Byrnes threw the weight of the United States in the scales for a two-thirds voting procedure as proposed by the Big Four, instead of a simple majority principle proposed by Australia.

Mr. Attlee also stressed the significance of the fact that the Big Four had been able to agree on many items: "This is in itself a matter for rejoicing and not for criticism. For, quite frankly, without such an agreement the chances of producing acceptable peace treaties would have been remote." Mr. Attlee asked the Conference not to forget that Germany and Japan, though broken, still had a very real capacity for making trouble in the case of any disunion in the allied ranks; and declared that, "having agreed to the drafts ourselves, we shall naturally support them at this Conference, but criticisms, suggestions, and recommendations made here must be given full consideration when the final drafts are framed."

Mr. Molotov, in his first speech (July 31) reminded the Conference that the Council of Foreign Ministers had been set up upon recommendation by the United States at the Potsdam Conference of 1945. The draft treaties now submitted showed that the Council had achieved some positive results; and whereas, in the Russian view, these drafts did not adequately reflect all the just aspirations of the Allied peoples, the collaboration of the great powers should not be made the target of "reactionary" attacks. He promised that the views of the Conference "will be heard with due respect and may prove of considerable value in the final consideration of the treaties. To the voices of Germany's ex-satellites, too, we shall listen with due attention."

These declarations by the chief United States, British and Russian delegates did not, however, satisfy the delegations of Australia and some other smaller nations. The Yugoslav speaker backed the two-thirds vote proposal, but insisted that no ethnic problem should be settled without the consent of the allied country directly concerned, and called the suggested Italian-Yugoslav frontier a negation of all fundamental principles for which the Yugoslavs had fought. A Netherlands motion that all countries (irrespective of whether they had been at war with the ex-enemy in question) should equally participate in all commissions, was defeated by 11 votes, with Great Britain, France and Russia against, and the United States abstaining. Finally, the Conference adopted Mr. Molotov's suggestion that any country which had not been at war with a particular ex-enemy could take part in the respective commissions but without voting Also accepted was a Greek-Russian proposal to widen the scope of the Conference by permitting it to discuss any subject relating to the five treaties,—a provision which opened the way, e.g. for the keen debate, later on, about the changes of the Greek-Albanian frontier.

After several days of discussion on the voting procedure it was clear that there was considerable —though not unanimous—opposition among the smaller nations against the two-thirds rule offered by the Big Four While none of the Big Four desired to have their carefully deliberated compromises jeopardized, Mr. Molotov fought hardest against the simple majority rule. Both sides argued that their respective standpoint was more democratic: those speaking for the simple majority rule claiming that, particularly since this was only a consultative body, the smallest participating nation should count as much as the biggest; and those favoring the two-thirds majority principle insisting that if the simple majority rule were adopted, a

combination of nations which in terms of population, and of sacrifices in winning the war and protecting the peace, represented only a small minority, could actually dominate the majority.

On August 4, Mr. Bevin proposed a compromise: decisions taken by two-thirds majority should be considered as full-fledged recommendations of the Conference to the Council of Foreign Ministers, and decisions taken by simple majority should also be sent forward for the attention of the Council. This proposal led to what was probably the most ardent debate during the whole conference. The United States and China supported the suggestion. Australia, Belgium, Brazil, and New Zealand backed a Netherlands amendment asking that the two-thirds rule should be dropped altogether. Mr. Molotov moved a third amendment; only recommendations adopted by two-thirds majorities should automatically go to the Council of Foreign Ministers; but those States that had supported a simple majority recommendation should be free to send their views as a group to the Council for consideration. On August 7, at 2 a.m., the Committee on Procedures adopted the British proposal by a vote of 15 to 6, with the Slav countries against. Two days later, Mr. Molotov's motion that the plenary session reverse the decision of the Committee on Procedure, was defeated by the same vote [1]

Earlier, a New Zealand proposal that all decisions of the Conference be submitted to the United Nations for approval before being finally incorporated in the treaties, was rejected 11 to 9, with all four Big Powers voting against, and Ethiopia abstaining.

The great emphasis laid, at the beginning of the Conference, on procedural questions can also be seen from the fact that a considerable discussion ensued before they were decided (12 to 8, with one abstention) as originally planned, to have the chairmanship of the Conference rotate among the United States, Britain, France, and Russia.

The subsequent course of the Conference showed that the differences of opinion on substantive issues were not as great as the tenacity of the discussion on procedure had made anticipate On several issues which had been left open by the Big Four, notably concerning details on the future of Trieste, the vote turned out to be mostly 15 to 6, with the Slav States in a minority of less than one third; but the apprehension lest, on the one hand, the simple majority rule would lead to the rejection, by the Conference, of the compromises previously achieved by the Big Four, and, on the other hand, that the two-thirds rule would amount to the domination of the Conference by the Slav "bloc," proved both unfounded. Above all, the fact that the Council of Foreign Ministers was able, a few weeks after the end of the Paris Conference, to agree unanimously on the final treaties, with due consideration to the views of the Conference, shows that the discussion in Paris about the relative "weight" of its various recommendations to the Council, had been dictated by precautions which, fortunately, proved too great.

The Italian Treaty. Of the five ex-enemy countries, Italy was the only major power. Her population exceeds that of the four others combined. She was the only European Axis member which possessed colonies. For two decades, Mussolini's Italy engaged on militaristic expansion and was one of the disturbing factors on the world scene; but she was also the first of Hitler's allies to break away from him. Bearer of an age-old culture, and holding a central geographic position, Italy is bound to play a significant role in postwar Europe.

For all of these reasons, the Italian treaty was the most important subject of the Conference. The other four treaties intended, generally speaking, to restore the countries concerned to the position they held before the war; the Italian treaty, notably by taking away many of her island possessions and all of her colonies, changed the structure of that State, and opened up the question of future power relations in the Mediterranean and parts of Africa.

Colonies. How much matters had changed was shown by the fact that the largest of Italy's overseas possessions, Ethiopia (Abyssinia), conquered by Mussolini in defiance of the League of Nations in 1936, was now one of the States deliberating on the fate of Italy.

As to Italy's other African possessions, the Council of Foreign Ministers had, after discussing several schemes, compromised on the British proposal to leave the final disposition in abeyance for a time (as had been done with certain Turkish possessions after the first world war): Italy was to renounce all claims and titles to her colonies, Great Britain should continue to administer them until the Big Four agreed on their final disposition; if no such agreement was reached within one year following the ratification of the Italian treaty, the problem should be referred to the General Assembly of the United Nations

The Conference accepted this plan but not without misgivings Various nations expressed dissatisfaction that the question had been taken out of the hands of the Conference. In particular, the Ethiopian delegate demanded "in view of even prefascist Italy's imperialist record," that the Conference decide about the colonies then and there (in order to prevent Italy from being appointed trustee over any of them). Mr. Aklilu also announced Ethiopian's general claim for parts of Eritrea and Italian Somaliland—the bases for Mussolini's attack on Ethiopia Brazil asked for the earliest granting of independence to Libya. Dr. Wang (China) demanded that self-government be granted, or promised, to at least some of the colonies, because this would inspire confidence in millions of colonial peoples elsewhere "awaiting full realization of their legitimate aspirations." The same demand was made by India, "vitally interested in the stability of the Mediterranean and the Red Sea." Dr. Evatt (Australia) asked that the decision about the Italian colonies be made, not by the Big Four, but by all countries which had helped in liberating them (under this formula the Soviet Union and possibly the United States would not participate in the decision but Australia would, because of her valiant contribution to the British campaigns in North Africa). A representative of Egypt asked the Conference to authorize the Arab League to administer Libya, until Libya be declared independent, and to return to Egypt the oasis of Jarabub, an important center of the Senussi tribe, which Egypt had ceded to Italy in 1925.

Island Possessions. The Dodecanese Islands in the Aegean Sea—a group of 13 islands (not 12, as the name implies), covering approximately 1,000 square miles with an overwhelmingly Greek population of over 100,000—were "temporarily" occupied by Italy during her war against Turkey in 1912. Immediately after World War I, Italy promised Greece 12 of the islands and conditionally, even the

[1] Thus, the Conference acted under the following rule "Recommendations of the plenary conference shall be of two kinds (a) those adopted by a two-thirds majority vote; (b) those which obtain a majority of more than one half but less than two-thirds of the members of the conference. Both types of recommendation shall be submitted to the Council of Foreign Ministers for their consideration."

thirteenth, the island of Rhodes. However, the final Peace Treaty with Turkey allotted all 13 islands to Italy.

Following the proposals of the Big Four, the Conference recommended the transfer of the islands to Greece, with the proviso that no fortifications be erected on them. The decision on the Dodecanese archipelago was to satisfy an old aspiration of Greece which the settlement after World War I had left unfulfilled; and to remove, thereby, an element of considerable irritation in South-Eastern Europe, aggravated by the fact that the islands lie near the Turkish mainland, midway between the Dardanelles and the Suez Canal.

The Conference also recommended that Italy cede small islands near the Albanian coast, to Albania, and certain other small islands near the Dalmatian coast, to Yugoslavia.

Whereas these questions (except the demilitarization of the Dodecanese) caused hardly any discussion, the two main issues between Yugoslavia and Italy, namely, the drawing of their new land frontier, and their respective influence on the "Free Territory of Trieste" proved to be the most formidable problems for the Conference.

The New Italo-Yugoslav Frontier (Venezia Guilia). In regard to the Italian mainland, the only major territorial change asked by the Big Four was the cession of the larger part of the Venezia Guilia province to Yugoslavia, and of Trieste to a new international entity, the "Free Territory of Trieste." In view of the great attention which this topic has received, the background of the question may be briefly outlined.

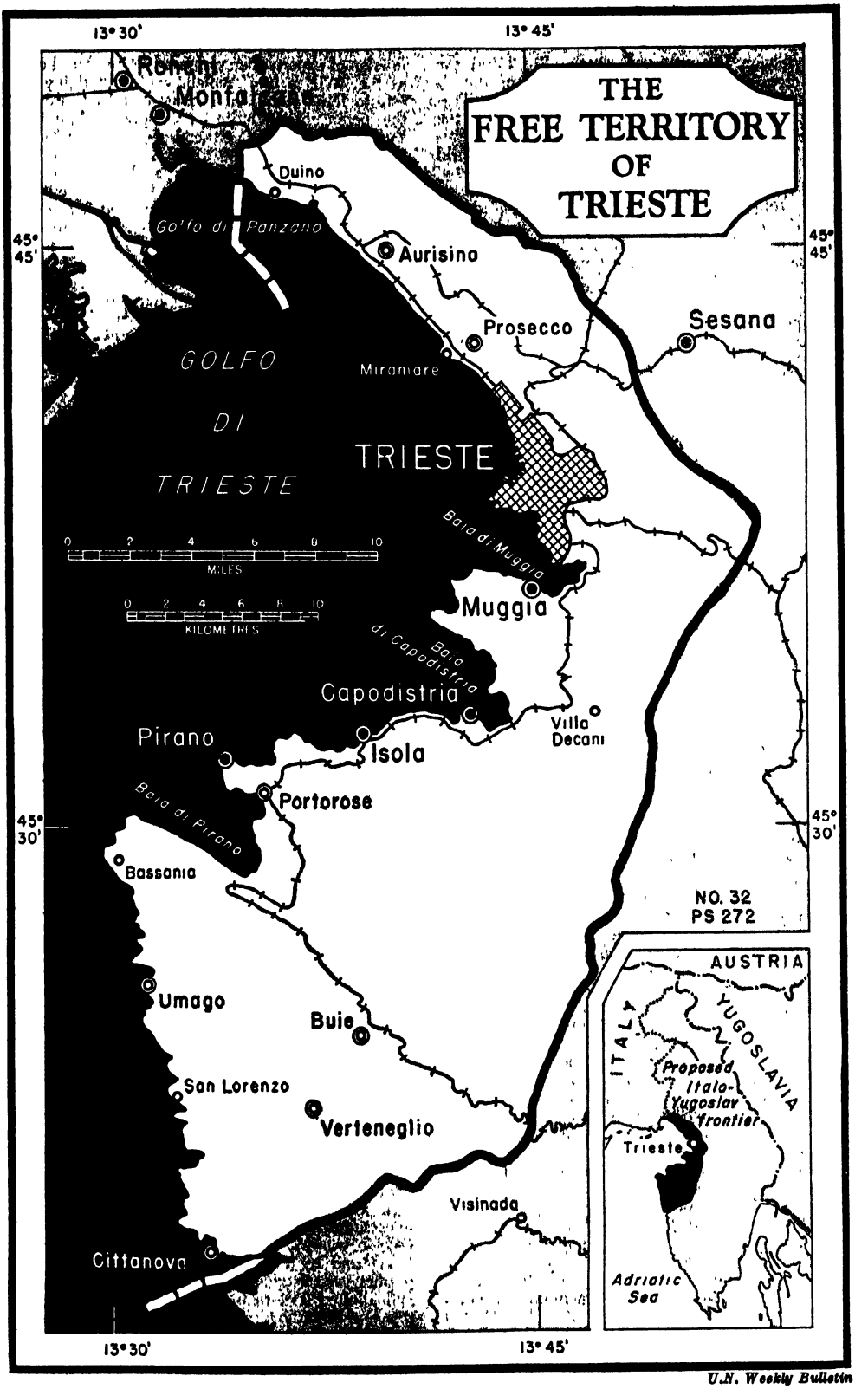
Venezia Guilia was the name given by Italy to a port of the territory annexed by her from the dissolved Hapsburg empire after World War I. Bordering in the East on Yugoslavia and in the South on the Adriatic, it covered about 4,000 square miles Its population, partly Italian and partly Slav (Croats and Slovenes)—with the Italians mainly inhabiting the cities and the Slavs living mainly in the countryside surrounding these cities —was about one million. The principal city of the region, Trieste, is, after Venice, the most important port of the Adriatic and, until 1918, was the main port of the Hapsburg Empire. This is historic soil; under the name of Tergeste, the port was important even in Roman-Illyrian times Almost as soon as Italy achieved unification (1870), the "irredenta movement"—a systematic propaganda and agitation campaign for the secession of these parts from the Austro-Hungarian monarchy—was started both within the (then Austrian) region as well as from Italy across the border. It was crowned with success when, in 1919, the territory fell to Italy. However, a similar though less vociferous claim had also been laid on this remarkably beautiful piece of land by the nationally conscious Slavs of the region who, in turn, were backed by their brothers living in Serbia across old Austria's South-Eastern border. It is not forgotten that the shots fired in the Bosnian city of Sarajevo by a South-Slav extremist against the heir of Hapsburg's throne, led to the outbreak of World War I in the summer of 1914

In April 1915, a secret treaty was signed in London between Great Britain and Italy, after consultation with France and (Czarist) Russia, in which Italy was promised, as prize for entering the war on the Allied side, very large territorial gains from the Hapsburg Empire, including Venezia Guilia, Trieste, Fiume and Dalmatia. The United States was not a party to the treaty; in fact, President Wilson learned of its existence only when arriving in Paris for the Peace Conference in 1919, and immediately protested against it as contrary to national self-determination. An American commission of experts then proposed a boundary known as the "Wilson line" which, while adjudging Trieste to Italy, would have given about one third of the peninsula, including the port of Fiume, to Yugoslavia. In 1919, neither Italy nor Yugoslavia—both were then on the allied side—accepted the Wilson line. Italy asked for a boundary farther East; Yugoslavia demanded, as in 1946, the whole of Venezia Guilia. Their views proved irreconcilable. The Peace Conference of 1919 had to close without solving the question. More than a year later, an attempt at solving it was made, after prolonged direct Italian-Yugoslav negotiations, in the Italian-Yugoslav Treaty of Rapallo. That treaty granted Italy less new territory than she had secretly been promised in 1915, because it allotted Dalmatia (except the city of Zara) to Yugoslavia; but it gave Italy very considerably more than the 1919 Peace Conference had been willing to concede her, and over 250,000 Slavs came thus under Italian domination. Concerning Fiume, third-largest Adriatic port, the Treaty of Rapallo provided that it would be a free city, independent of both Italy and Yugoslavia, under the supervision of the League of Nations.

Yet, a few weeks after the signing of the Treaty of Rapallo, the Italian poet and friend of Mussolini, Gabriele d'Annunzio, at the head of a group of fascisti, conquered Fiume by a coup, and Fiume was annexed to Italy. After the Fascists came into power in Italy, they carried out a regime of suppression against the Slav minority. In World War II, Italy launched the invasion of Yugoslavia from this region, and subjected the parts of Yugoslavia which she occupied, to even worse violence.

Thus, if the question of the Italo-Yugoslav frontier proved hard to solve at the 1946 Peace Conference, it should be remembered that it formed an even more difficult question after the first war—so difficult, indeed, that the 1919 Peace Conference (at which Russia did not participate) had to give up on this point, and that the intervening years had seen a serious deterioration of Italo-Yugoslav relations. The Conference acknowledged that the Italian Republic of 1946 could not be blamed for the wrong wrought by Mussolini's Italy on her Eastern neighbor; but several delegates were remindful of the case of Fiume, and it was also pointed out that the Fascist party had gained power in 1922 when it held a mere 35 seats out of the 574 in the Italian Parliament

The injustice of the frontier, as it existed between the wars, has been widely admitted, and when the Foreign Ministers of the Big Four came to discuss the topic, they readily agreed on the principle that Yugoslavia should acquire a considerable part of Venezia Guilia; but it was more difficult for them to find a mutually acceptable line. In the end, they agreed to recommend to the Paris Peace Conference a line which approximately followed what has become known as the "French line" because it was proposed by Mr. George Bidault, the French member on the Council of Foreign Ministers. It is a compromise between the lines suggested by the Americans and the British (which would have drawn the frontier farther East) and by the Union of Soviet Socialist Republics (which would have drawn it farther West and allotted Trieste to Yugoslavia). According to this line Yugoslavia was to receive, from the territory which Italy had acquired from Austria after the first world war, an area of about 3,000 square



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miles with a population of about half a million, of whom three quarters (376,000) were estimated to be Slavs and the rest (128,000) Italians. According to the same compromise, the center of the region, Trieste, was to be given neither to Italy nor to Yugoslavia; instead, an area of about 300 square miles, including the city and harbor of Trieste, with a mixed Italo-Slovene population of some 320,000 (the majority, Italians), was to be carved out of the territory and made into the "Free Territory of Trieste."

The Statute (Constitution) of the Free Territory of Trieste. After compromising on the creation of the "Free Territory of Trieste," the Council of Foreign Ministers did not draw up detailed plans concerning its governmental structure; it merely recommended that the integrity and independence of the Territory be guaranteed by the Security Council of the United Nations, that the Security Council was to appoint the "Governor" of the Territory; and that the "Statute" (constitution) of the Territory should provide for the establishment of a legislative and executive authority "on democratic lines." Beginning on September 13, 1946, the Italian Territorial and Political Committee endeavored, for more than 3 weeks, to fill this rather loose frame for the constitution of the first "Free Territory" to be set up under the auspices of the United Nations.

Yugoslavia, bitterly disappointed that her claim for the whole of Venezia Giulia had been cut, and for Trieste rejected, made vigorous efforts to persuade the Committee that the Free Territory should be connected with her by a customs union, and similar administrative ties; that Yugoslavia should have the right to designate the governor for Trieste, and be responsible for the conduct of the foreign affairs of the Territory. Her main arguments were that the prosperity of the port would depend on its close connection with Yugoslavia, its main hinterland, and that she had far greater interest in Trieste than Italy, because Yugoslavia possessed no other harbor which she would be able to develop, whereas Italy possessed a number of first-class harbors, and, in fact, Trieste had withered during the 25 years of Italian administration. The Czechoslovakian delegate declared that his country, as a principal user of Trieste and interested in its tranquillity, would have considered as the best solution to make Trieste a federal unit within the Yugoslav Federation. Since this was not desired, a customs union between Trieste and Yugoslavia, the common administration of the railways, and the participation of Yugoslavia in the choice of governor should be guaranteed. It was clear from the outset that many—but not all—of Yugoslavia's demands regarding Trieste were backed by Czechoslovakia, Poland, the Soviet Union, Byelorussia, and the Ukraine, but that they were opposed by the other participating countries.

It is to be noted that on these points, the Conference had at its disposal few recommendations of the Big Four, and that it was just here, in the endeavor to fill out the details for the Big Four's basic plan for Trieste, that bitter arguments arose. Evidently, the debate was more heated than the intrinsic significance of the questions would have warranted; and this was so because, behind the arguments, lay the fear lest Yugoslavia would gain predominance in the strategically located port and, thereby, somehow pave the way for Russia's penetration into the Adriatic; and, on the other hand, the fear lest Trieste might somehow become a military outpost of Western "capitalism" at the very flank of the Balkans.

The main bone of contention was the distribution of powers between the Governor on the one hand, and the Legislature (Parliament) of Trieste on the other. What prerogatives should the Governor, who was to be elected by the Security Council, possess? To what extent, and under what safeguards, should he have the right to veto the decisions of the popularly elected Assembly, and to dissolve it? Should he have the power to rule by decree? Should the police be under him, or under the Government of the Territory? The Conference had only one precedent to look to, namely, the Free City of Danzig which was administered under the auspices of the League of Nations. The day-to-day administration of that Baltic port confronted the League with many a complex problem; and in the end, the safeguards in the Danzig Constitution had proved too weak to withstand the pressure of the Nazis outside and inside the region.

The conclusions to be drawn from the Danzig experiences differed widely, e.g. the French delegate, disagreeing with Czechoslovakia, asked for a system which would combine true sovereignty of the Territory with the principle of supervision by the Security Council. The Australian delegate expressed grave doubts that the Security Council would be able to guarantee the integrity and independence of the Territory, as demanded by the Big Four; instead, all signatories to the peace treaty should pledge themselves to respect the independence of the Territory. The British delegate asked, on the contrary, for the widest possible powers for the Governor as the representative of the Security Council. The view of the United States was succinctly summed up by Senator Connally: "In our conception, the Governor is the agent of the Security Council in the free territory. He can in no sense, as has been suggested, be regarded as a dictator or as the agent for any foreign group of powers striving to use Trieste for their own ends. . . . He is the instrument of the international organization charged with the maintenance of peace and security. He must have sufficient powers to fulfill his responsibilities." Mr. Molotov proposed a nine-point program for the administration of Trieste (September 14): (1) The Free Territory must be completely demilitarized and neutral; (2) All foreign troops must leave the Territory within 30 days after the signing of the treaty; (3) In order to foster the economic prosperity of the Territory there should be close economic collaboration with Yugoslavia, through a customs union, common currency, common administration of railroads, etc.; (4) All countries should receive the same rights in the port of Trieste, but Italy and Yugoslavia should receive "free zones" within the limits of the port; (5) The task of the Governor should be to guarantee the observance of the "Statute" of the Territory; (6) The legislative authority should be exercised by popular Assembly, elected by secret, general, direct, and equal suffrage on the principle of proportional representation; (7) The executive power should be exercised by the Government of the Free Territory, elected by the Assembly and responsible to it; all branches of the administration of the Territory, including the border police and the coast guard, should be under that Government; (8) Italian citizens residing in the Territory on and since June 10, 1940 should acquire citizenship of the Territory; however, various categories, such as active members of the Fascist Party, war criminals, etc., should be excluded; (9) As a transitional measure, a commission of the Big Four should appoint a provisional government which, in turn, should arrange for elections of the Assembly within three months.

Two of these proposals were accepted without opposition: that the Governor should be responsible for safeguarding the observance of the constitution of the Free Territory; and that legislative authority should rest with a popular Assembly freely elected by proportional representation (on the second point, Canada, Great Britain, Greece, India, and New Zealand abstained). Mr. Molotov's point no 2 (withdrawal of the American and British occupation forces from Trieste) was defeated; instead, it was decided by a vote of 15 against 6 that United States and British troops would be entitled to stay in Trieste until the Security Council would decide on a date for their withdrawal. Otherwise, and on the hotly debated question of the prerogatives of the Governor, a number of clauses were adopted as put forward by French compromise proposals and summarized as follows in the just-mentioned speech by Senator Connally: "The recommendations propose the establishment of a thoroughly democratic government—the Governor under the direction of the Security Council is to preserve the territory's integrity and independence and to preserve public order and the rights and freedoms of the inhabitants; his powers are delimited. A legislative assembly elected by the people through universal suffrage without discrimination is to be established. It has wide powers. It elects the Council of Government and enjoys legislative authority. It may file protests with the Security Council against any act of the Governor. A system of independent courts is set up to administer justice according to law. The French proposal sets up a plan which assures the people a free and independent governmental system under which Trieste and its people will be able to prosper and progress and develop."

Yugoslavia (whose government and opposition parties were united in their demand for Trieste) and the other five Slav participants of the Conference did not see it in this light. For the final vote-taking, in the plenary session, the rules of the Conference permitted the re-introducing of amendments even if they had been rejected in committee, and the calling for a separate vote on each subsection of any treaty article. Hence, more than 30 votes were taken on Art. 16 (dealing with Trieste) until it was accepted as a whole, 15·6.

Territorial Concessions to France. As suggested by the Council of Foreign Ministers, the Conference agreed on the cession to France of small areas on Italy's northwestern border, one in the Mount Cenis region, and the others around the little towns of Briga and Tenda, near Nice; the latter region contains hydro-electric developments, and France was to be required to safeguard Italian interests in the sources of the electric power.

Italo-Austrian Agreement on the South Tyrol. During the months preceding the Peace Conference, high hopes were aroused in Austria by the allegation that Italy (which had received this Alpine region, famous for its grandeur, in 1919) would be asked to return the part of South Tyrol which is inhabited by approximately 250,000 German-speaking persons. But by the time the Austrian Foreign Minister, Mr. Gruber, was permitted to address the Conference, he no longer entertained these hopes and merely pleaded for a solution which would be freely acceptable to the inhabitants of the South Tyrol "who still considered themselves Austrians." Encouraged by the United States and other Allies, the Austrian and the Italian delegations then entered into direct negotiations on administrative and other problems in the South Tyrol, which led to an Italo-Austrian agreement signed on September 15, 1946. The Agreement was officially hailed by Secretary of State, Mr. Byrnes, as a constructive step toward amicable relations between Italy and Austria; and upon a Belgian-Netherlands motion, the Italian Territorial and Political Commission recommended that it be incorporated into the Italian peace treaty; the six Slav States voted against, arguing that Austria should not enter into an international agreement of this sort before her own peace treaty had been signed.

Reparations and Restitution. Contrary to expectation, the financial clauses of the Italian treaty caused comparatively few difficulties. The Council of Foreign Ministers submitted only one specific proposal, namely that the Soviet Union should receive $100,000,000 from Italy, in partial reparation for the damages (estimated by the Union of Soviet Socialist Republics at six and a half billion dollars) inflicted by Italian troops during the invasion of the Ukraine, but left it to the Conference to consider the reparations claims of other countries attacked by Italy, such as Greece, Yugoslavia, and Ethiopia. The United States and Britain, while recognizing that the damages inflicted by Italy were far higher than the claim made by the Soviet Union, strongly backed Italy's plea to reduce the reparations sum in view of Italy's bad economic condition, and pointed out that they themselves did not ask for any reparation although the United States and Great Britain would be able to put forward claims for twenty and twelve billion dollars respectively, as the cost of their military operations against Italy. The Italian ambassador in Washington, Signor Tarchiani, asked the Italian Economic Committee to set the reparation total not higher than three hundred million dollars; to give preference to payment in goods; and to distribute the reparations fairly over a definite period of time. These requests were practically met; in accordance with a British proposal, the Conference recommended unanimously to assess one hundred million dollars reparations each to the Union of Soviet Socialist Republics, Greece, and Yugoslavia, and twenty-five million dollars to Ethiopia, as far as the reparations for Russia were concerned, they should come out of Italy's current industrial production with Russia supplying the raw materials, and should be distributed over seven years The Yugoslav motion to fix Italy's reparations to Albania at twenty-five million dollars was defeated by a vote of 12 to 6; instead, it was decided to leave the determination of Albania's claim to the Council of Foreign Ministers.

From the question of reparations—indemnification for damages suffered by the attacked nations on their own territories—must be distinguished the question of restitution—indemnification for damages suffered by the attacked nations within the territory of the aggressor nation itself. On the latter point, the Council of Foreign Ministers had not found an agreement. Instead, two proposals were submitted to the Conference; one, sponsored by the United States, calling for compensation, at 100 percent of the cost of replacement, to owners (if they are citizens of a United Nation) of lost, destroyed, or damaged property. The other, put forward by the Union of Soviet Socialist Republics, asked for analogous compensation to the extent of 33 percent. At the Conference, the United States proposed a reduction to 25 percent compensation, but argued that United Nations citizens "who held property in Italy through the medium of corporations organized under Italian law"—e.g. Italian corporations owned by American interests—should be treated in the same way as United Nations citi-

zens "who held property in Italy directly." On a basis of a compromise again suggested by France, the compensation for Allied property was fixed at 75 percent of the damage. This formula was adopted not only for Italy but for all five ex-enemy countries. In view of the comparatively heavy capital investments, especially of American, British, and French interests, in Italy and the Balkans, computations made at the Conference showed that the obligations of the ex-enemy countries under the title of restitution of property would greatly exceed the payments to be made under the title of reparations. The Conference also accepted an Article authorizing any Allied Power to seize Italian property (whether property of the Italian State or private Italian property) within its own territory up to the limit of any claim presented by an Allied Power, other than claims covered by the provisions concerning reparations or restitution

One important question which was particularly stressed by the Italian Prime Minister, Signor de Gasperi, when he addressed the Conference, was not settled in Paris: should Italy be allowed to demand reparations from Germany, and if so, in what manner and to what extent? The Italian Government provisionally estimated Italy's claim at over two hundred billion lire—a sum exceeding many times the reparations demanded from Italy.

In the light of this problem—which grew out of the fact that Italy, at first Hitler's strongest European Axis member, in 1943 declared war on Germany, while in the North of the country Mussolini's "Fascist Republic" fought with the Nazis against the Allied Armies and the Italian partisans—it is understandable that the wording of the preamble to the Italian treaty caused a great deal of discussion at the Paris Conference; the question was how to assess, in the preamble, on the one hand the measure of war guilt of Fascist Italy, and, on the other, the recognition of post-fascist Italy's services to the Allied cause It was remarkable that, despite the deep bitterness still alive in the countries which had experienced the weight of Italy's aggression, the Conference was able unanimously to adopt a revised preamble which, later, may provide important clues for the answer to such questions as the right of the new Italian Republic to demand reparations from Germany. See REPARATIONS.

Military Clauses. On the other hand, the Conference was unanimous in its determination to ask for Italy's demilitarization. In accordance with the recommendations of the Big Four, it decided, with no dissenting vote, to recommend the reduction of Italy's army (including the Carabinieri corps) to 250,000, her air force to 25,000 and her navy (which henceforth is to consist only of two small battleships, four cruisers and some smaller craft) to 22,500; she is to be allowed a maximum of 200 medium and heavy tanks, no submarines, no bombing aircraft. The frontier areas with France and Yugoslavia must be demilitarized to a depth of 12 miles, extensive other land areas and all her islands must be wholly or partially demilitarized.

The Final Vote. The plenary session took more than 80 votes on the Italian treaty; the procedure lasted from 3 p.m. on October 9, until the wee hours of October 10. On many important issues (all financial and military clauses; Italy's renunciation of her colonies; the transfer of the Dodecanese Islands; the preamble to the Treaty, etc.) the vote was unanimous. However, on most clauses which had remained controversial, first of all on Trieste, the vote was 15 to 6, with Czechoslovakia, Poland, Yugoslavia, and the three Soviet delegations on the losing side, but the Union of Soviet Socialist Republics carefully avoiding to vote against provisions it had consented to in the Council of Foreign Ministers and, therefore, repeatedly voting against Yugoslav amendments. Yugoslavia was especially dissatisfied with the clauses granting extensive powers to the Governor, and the obligation imposed upon her to grant political liberties to all persons in the territory to be ceded to her, a provision which she called "an offense," since these rights were contained in her constitution. It was clauses such as this which induced Yugoslavia to declare that she would be unable to sign the treaty unless modifications were made.

The Rumanian, Bulgarian, Hungarian, and Finnish Treaties. ***Territorial Provisions Concerning Rumania.*** The evaluation of the changes recommended by the Conference, following the draft of the Big Four, in the map of Rumania depends on whether a comparison is made with her size before the first world war, or between the wars, or at the time of the peak of Hitler's power. The territory conceded to her in Paris is considerably larger than that which she possessed in 1914 because the rich land of Transylvania (22,300 square miles, 3,200,000 population)—which she received from Hungary in 1919 but four-fifths of which (17,300 square miles, 2,400,000 inhabitants) Hitler "awarded" back to Hungary in 1940—was again allotted to Rumania However, Bessarabia (17,300 square miles) and Northern Bukovina (2,000 square miles) with a combined population of 3,750,000 which Rumania held between 1919 and 1940 were to be left with Russia, and the often-contested province of Southern Dobrudja (3,000 square miles, 410,000 population) which had formed part of Rumania between 1913 and 1940, was to be left with Bulgaria.[2] Thus, Rumania would now be larger, by the four-fifths of Transylvania (17,300 square miles), than she was during her alliance with Hitler when she had to cede that area to Hungary; and this addition would offset the loss of the far less developed and fertile regions of Bessarabia and Northern Bukovina (together 19,200 square miles) On the other hand, Rumania would by those 19,200 square miles be smaller than at the time of her greatest expanse, i.e. between 1919 and 1940 when, due to the weakness of Russia at the aftermath of World War I, Rumania had been able to annex Bessarabia from Russia, and Northern Bukovina, with a preponderantly Ukrainian population, from the remnants of the Hapsburg empire. In other words, Rumania (which in World War I sided with, and in World War II against the Allies) was allowed to keep the more valuable half of the gains she had made after the World War I.

It is noteworthy, in view of the complicated ethnical situation and the strength of national aspirations in South-Eastern Europe, that the Peace Conference was able to reach unanimous agreements on all those clauses.[3]

Territorial Provisions Concerning Bulgaria. The Bul-

[2] Rumania ceded the Southern Dobrudja to Bulgaria in 1940 The Peace Conference approved of the deal because it makes the Danube the frontier between the two countries As long as Rumania possessed not only the northern but the southern bench of the Danube (on which Southern Dobrudja is situated) she was theoretically in a position to close the mouth of the river

[3] The Conference, after careful consideration, rejected, first, a Hungarian demand for a section (8,000 square miles) of Transylvania and, afterwards, a Hungarian compromise proposal for a border rectification by which Hungary would have gained an area of approximately 1,500 square miles inhabited by approximately 500,000 of whom, she claimed, 67 percent are ethnically Hungarian In the final vote on Transylvania, Australia, and South Africa abstained.

garian territorial clauses proved to be more controversial, although the areas involved were very much smaller. In the end, only one change was recommended with respect to that country, namely the just-mentioned consent to the transfer of the Southern Dobrudja from Rumania to Bulgaria.

The controversies flared up over a Greek request for a border rectification from Bulgaria, and a Bulgarian demand for a border rectification and access to the sea at the expense of Greece. These discussions were strongly colored by the fact that the Greek situation formed one of the most controversial topics of world politics in 1946 (while the Conference was sitting in Paris, the Security Council in New York rejected a Ukrainian complaint against Greece, charging that the "irresponsible" policy of the Greek Government had created a "situation '" which gravely endangered the peace and security in the Balkans; see articles on GREECE and UNITED NATIONS).

Although representing an ex-enemy country, Bulgaria's Foreign Minister demanded as "legitimate and vital" the "restitution of Western Thrace" which would give his country an outlet on the Aegean Sea (the Treaty of Bucharest [1913] did, in fact, allot Western Thrace [the provinces of Rodopi and Evros] to Bulgaria). The claim was backed by the Union of Soviet Socialist Republics (Mr. Vishinsky quoting Mr. Winston Churchill's previous support for Bulgaria on this point), Poland and the Ukraine, but repudiated by most of the other member states; Prime Minister Tsaldaris of Greece called it, with "profound indignation," a "recrudescence of Bulgarian expansionism." Greece, in turn, strongly backed by Great Britain, asked for about 800 square miles of Bulgarian territory, inhabited by about 40,000 people, in order to improve her defensive position against Bulgaria which "had attacked her thrice during this century." This brought forth the accusation that Greece was "stretching her avid hand toward Bulgaria's capital" (since the end of the war, street demonstrations in Athens frequently clamored for "Sophia"), and that the new "Bulgarian people's democracy" was treated with undeserved hostility by the Western Powers although it could not be made responsible for the deeds of "the criminal band entrenched round the Bulgarian throne." Before the final vote was taken on the Bulgarian treaty (October 11), Mr. Caffery, United States ambassador to France, declared that the United States, after long consideration, rejected the Greek demand because her border could better be safeguarded by prohibiting Bulgaria to install long-range weapons along that frontier, and that, first of all, the territorial integrity of Greece was well protected by the United Nations. Yet, the full Conference overruled both the Council of Foreign Ministers and its own Bulgarian Committee when only 9 States (including France, United States and Union of Soviet Socialist Republics) voted in favor of leaving the Bulgarian-Greek frontier unaltered (thus dismissing both the Greek and the Bulgarian claims), but all other 12 nations (including Britain and Greece) abstained.[4] Thereupon, Mr. Byrnes, in the chair, announced that the question would have to be dealt with again by the Foreign Ministers of the Big Four.

Greek Territorial Claims Against Albania. The Conference having authorized the participating States to raise matters not directly arising out of the peace treaties, Greece formally submitted to the Conference a demand for the southern third (3,000 square miles) of the territory of her northwestern neighbor, Albania. Greece had asked for this area, known as "Northern Epirus," ever since 1878, decades before Albania gained independence from Turkey in 1912, and with special emphasis at the 1919 Peace Conference which ended in a stalemate on the question. In fact, not until seven years after the end of the 1919 Conference were the Albanian frontiers defined in an international treaty to which Greece was, however, not a signatory. That treaty left the southern part of Albania which Greece had demanded, to Albania, after a neutral Commission of Inquiry of the League of Nations had reported that "an independent Albania is only possible if the Southern provinces are included."

At the 1946 Peace Conference Albania emphatically rejected the Greek claim and, on the contrary, asked, for ethnic reasons, that some Greek territory beyond the present border be adjudged to Albania. While not succeeding with her own claim, Albania scored the success that, on September 26, after a vigorous debate lasting over three weeks, the Conference decided not to take any action on the Greek-Albanian border.

Territorial Provisions Concerning Hungary. Apart from the return of Transylvania to Rumania (see above) the only matter before the Conference involving Hungarian territory was a Czechoslovak demand for a small stretch of land (5 villages, population 8,000) on the right bank of the Danube opposite Bratislava. The proposal was dictated exclusively, the Czechoslovak delegate declared, by stringent economic considerations. Czechoslovakia has no access to the sea; her only important Danube port is Bratislava where a winter harbor is vitally needed; but there was not sufficient room for it on the Bratislava (left) side of the river, and, therefore, the demand for the necessary space on the right bench. After considerable discussion, in the Hungarian Committee and in a special subcommittee, the Czechoslovak proposal was accepted by the Conference without a vote.

Transfer of Hungarian Minority from Czechoslovakia. Ever since Czechoslovakia was founded in 1918, she was the target of militant revisionist propaganda from her German and Hungarian minorities (supported, respectively, by Germany and Hungary)—movements which led, after the Munich pact of 1938, to the dismemberment of Czechoslovakia and the annexation, by Hungary, of the major part of Slovakia. The draft treaty of the Big Four declared that annexation null and void The Conference accepted two Czechoslovakian amendments, one establishing Czechoslovakia's claims against Hungary for economic and financial damages resulting from the Hungarian occupation, and the other forbidding Hungary to make revisionist propaganda, "especially" if "aimed at Hungary's neighbors." Violations of this provision shall immediately be brought to the attention of the Security Council of the United Nations by Hungary's neighbors.

But in view of her experiences, Czechoslovakia asked for a clause permitting her to hand over to Hungary up to 200,000 persons of Magyar extraction. A vivid debate followed. Hungary pleaded for the rejection of the proposal; Czechoslovakia insisted on the irritation caused by the unassimilable part of the Hungarian minority, emphasized the brutalities committed by the Hungarian army in Slovakia, and assured the Conference that the transfer would be carried out humanely and, if desired, under United Nations' supervision. Endorsed by

[4] Commenting on this vote in the House of Commons on October 22, 1946, Mr. Bevin declared that "we and a number of other delegations felt that the claims of Greece had not been studied sufficiently and that a final decision should be deferred."

Mr. Vishinsky, Czechoslovak Foreign Minister Mr. Masaryk pointed out that Hungary had begun to send her German minority of 500,000 to Germany, and should therefore receive her fellow-Hungarians with open arms. The United States and British delegates, expressing their appreciation of Czechoslovakia's desire to solve the minority problem once and for all, objected to the compulsory transfer and recommended direct Czecho-Hungarian negotiations. Czechoslovakia accepted the suggestion and withdrew its amendment, for which she received warm praise.

Territorial Provisions Concerning Finland. When, in September, 1944, Great Britain and the Soviet Union concluded an armistice with Finland, it was understood that the final peace treaty would contain virtually the same conditions as that armistice. Accordingly, and in conformity with the draft of the Council of Foreign Ministers, the Finnish Committee (in which the United States, not having been at war with Finland, was not represented) recommended the cession, to Russia, of the Karelian Isthmus above Leningrad, and of the arctic port of Petsamo; in the Baltic Sea, the Soviet lease of the naval base at Hangö was to be renounced (as also provided in the armistice) in exchange of similar rights at Porkkala. When the Finnish treaty came to a vote at the last working day of the Conference (October 14) Mr. Bevin declared to propose no change. Senator Vandenberg criticized the territorial provisions, which then were carried by a vote of 20 to 0, with the United States abstaining.

Navigation on the Danube. At 9 a.m. on October 10, only six hours after finishing the vote on the Italian treaty, the plenary session started the final debate on the Rumanian treaty. Characteristically, it centered around Art. 34, providing for free navigation and commerce on the Danube, unrestricted by customs or other barriers set up by the countries on its banks; and upon the proposal to hold, within six months of the signing of the treaty, a conference of the four Big Powers and the riparian States to draw up a Danubian Convention. These clauses, and (on the following days) analogous clauses in the Hungarian and Bulgarian treaties, were carried by more than a two-thirds majority against the opposition of Russia (which, through the reacquisition of Bessarabia, has become a riparian State) and the two other participating Danubian States, Czechoslovakia, and Yugoslavia. Bulgarian, Rumanian and, to a lesser extent, Hungarian opposition was also noticeable, but could not, of course, be expressed in the vote since ex-enemy States had no vote.

After Trieste, the question of the "Free Danube" was the most controversial of the Conference. Hence, some of the declarations made on October 10 may, as typical of numerous speeches on the subject, and of the whole atmosphere of the Conference, be briefly quoted:

Senator Vandenberg stated that a free Danube was indispensable to the economic health and, therefore, the peace of Central Europe. The United States had no direct commercial interest in the river, but had a temporary responsibility on account of the occupation of two Danubian States, Austria and Germany. That Danube commerce could not prosper if at the mercy of discriminatory administration, had been recognized since 1856 and even before, when international administration had been set up. Not to establish it now would be a step backward. "If we intend that the Danube shall resume the freedoms heretofore established and shall develop in peace and progress, this Conference must say so now. . . . We shall not collide with any Danubian aspirations unless these aspirations collide with these freedoms. In such an event it is doubly necessary that we should anticipate the protective contract now."

Mr. Kardelj, Yugoslav Foreign Minister, declared that Yugoslavia was more interested in the Danube than any other country because almost half of the navigable Danubian system lay within her border. She "absolutely rejected" the proposals adopted in Committee by the votes of countries thousands of miles away from the river while the participating Danubian countries voted against them. The so-called principle of freedom of Danubian navigation has long since become "a vestige of the state of dependence and oppression in which the Danubian countries used to live." Now, these "dishonorable remnants of the past must not be allowed to continue."

Mr. Bevin called it "both unfair and unjust" to assert that Britain was seeking Rumania's "economic enslavement" by merely insisting that Britain be given exactly the same treatment as others. Nothing would do more to remove the suspicions concerning Russia's designs in that part of the world, and to remove the division between East and West which Mr. Molotov had called an absurdity, than acceptance of the freedom of Danubian navigation on equal terms.

Mr. Molotov replied that freedom of navigation should not be limited to the Danube and not dealt with in the peace treaties, but that the matter should be considered on a world-wide basis. Alluding to the Dardanelles (from the administration of which the Soviet Union is excluded), he said that "there are also sea rights" and rights of passage through waterways connecting seas, which are of greater importance than rivers, e.g. the Suez Canal and the Panama Canal. Also, the powerful States should not take advantage of the postwar difficulties of the poorer countries, either "under the guise of equal opportunities or of dollar diplomacy. Private capitalists can become the veritable owners of whole states where they can do what they wish as a result of the power their Dollars give them." The regime established for the Danube 90 years ago was "a typically imperialistic policy of the 19th century" which should not survive. Now to advocate a river regime to which the smaller Danubian States were opposed, was inconsistent with the principles of democracy.

Behind the controversy lay the fears, on the part of the Western Powers, lest, without joint action, the Soviet Union might achieve undue preponderance in the administration of the Danube and, thereby, in the economic and political development of the Danubian area; and lest the socialistic trends in those regions would lead to discrimination against Western capital and business. On the other hand, the countries immediately concerned were apprehensive that the prohibition of "barriers" would infringe upon their sovereignty, and result in too strong economic, and therefore political, influence of the Western Powers,[5] Russia also appeared to feel that, the Danube being the highway to the Black Sea (the mouth of the Danube is only a few hundred miles from Odessa) it could conceivably become the highway of aggression against her. Yet, as, e.g. the London *Observer* of October 12, 1946, pointed out, the Peace Confer-

[5] In that connection, the Slav countries time and again criticized the United States for holding the 800 Danube barges removed by the Nazis, the majority of which belonged to Yugoslavia, and alleged that this United States policy aimed at exercising pressure on the Danubian States.

ence did not discuss the *nature* of the contemplated "internationalization" of the Danube, and left, therefore, much room for compromises.

Reparations and Economic Provisions. Following the armistice agreements, the Big Four had set the reparations for Russia at $300 million each from Rumania, Finland, and Hungary; in addition, Hungary should pay $50 million each to Czechoslovakia and Yugoslavia. An Australian proposal to make the Rumanian reparations payable, not in commodities but in foreign exchange, met with strong Russian opposition and was defeated. The United States, in the words of Senator Vandenberg, did not desire to take from any Ally "one penny of the pitifully small percentage of reparation which it is wise for them to collect;" yet, in view of Finland's and Hungary's economic weakness, the United States advocated a reduction of their reparations by one third, but refrained from submitting to the full Conference formal amendments to this effect. As Mr. Byrnes said after the Conference, "our views are different from the views of countries whose territories were laid waste by military operations and whose peoples were brought under the yoke of alien armies and alien gestapos." In the final vote, the Finnish and Hungarian reparation clauses were carried by simple majorities, with the United States against, and the four other Big Powers for.

In regard to Bulgarian reparations (which the Big Four had left open) Greece presented a claim for $200 million while Yugoslavia proposed to ask Bulgaria only for a nominal sum of $25 million (16 for herself, and 9 for Greece). Interestingly, the United States suggested that Yugoslavia should, on the basis of equality of burden of the ex-enemies, receive more than Yugoslavia herself asked, namely 50 million, with another 50 million going to Greece. When this proposal was rejected, the British motion to set the Bulgarian reparations to the two Balkan allies at $62 5 million each, was carried with American support.

On the question of restitution of Allied property in the four countries, the compromise figure suggested by France—75 percent—was inserted in the treaties, by votes of 12 to 6, with 3 abstentions. A United States–British proposal that the ex-enemy countries must, during the 18 months following the signing of the treaties, grant the most-favored-nation treatment to all Allies (a clause to prevent Eastern-European tariff blocs) was also accepted with only a simple majority, as was the recommendation that citizens and corporations of all Allies must receive identical protection of property and economic initiative. However, rather unexpectedly, the British demand for special protection of foreign oil corporations in Rumania (which would have embarrassed Rumania in view of her socialization measures) was defeated by a vote of 10 in favor, 9 against, and 2 abstentions. The right of the Allies to seize, within their own territories, property of ex-enemy governments and citizens, was established only in the case of Rumania.

Military Provisions. The figures for the maximum strength to be allowed to Rumania, Hungary, Bulgaria, and Finland, respectively, were, after little discussion, set as follows: Army (in the case of Hungary, including Danube river flotilla personnel): 125,000; 65,000; 56,800; 34,400; navy personnel: 5,000; none; 3,500; 4,500; navy tonnage: 15,000; none, 7,250, 10,000; air force personnel: 8,000; 5,000; 5,200, 3,000; number of aircraft: 150; 90; 90; 90. All four countries were forbidden to possess bombers, and certain types of military equipment and of naval craft; only on the right of Bulgaria to possess motor torpedo boats, no agreement was reached.

All Allied occupation troops (which, in these countries, meant Soviet troops) would withdraw within 90 days of the coming into force of the respective treaties.

Conference Ends Its Work. After having extensively discussed, and voted on, the 223 articles and 33 annexes of the 5 treaties, the Conference ended its work on time, on October 15. Three days later, in his radio report to the American people, Mr. Byrnes summed up his opinion: "In a world where no sovereign state can be compelled to sign or ratify a peace treaty . . . these treaties are not written as we would write them if we had a free hand. They are not written as other governments would write them if they had a free hand. But they are as good as we can hope to get by general agreement now or within any reasonable length of time." Mr. Bevin, reporting to Parliament, stated "I think we can say that the Conference has successfully accomplished" its task.

The Final Work of the Council of Foreign Ministers. In fact, when the Foreign Ministers of the Big Four started, on November 4, to write the final treaty texts on the basis of the recommendations of the Peace Conference, they found that the basic compromises which they had hammered out before the Conference, had passed the scrutiny of the other nations. This session of the Foreign Ministers was held at the Waldorf-Astoria Hotel in New York, concurrently with but independent of the meeting of the United Nations General Assembly. It was marked by an atmosphere of harmony. By December 12, it finished its work, having reached mutually satisfactory solutions for the issues which had troubled the Conference, mainly the governmental machinery for Trieste, the withdrawal of United States and British troops from Trieste, the Danube, and Bulgarian reparations; and decided that the formal signing of the five peace treaties would take place in Paris on February 10, 1947.

Comparison of Two Peace Conferences. How successful was the 1946 Paris Peace Conference? How does it compare with the Paris Peace Conference of 1919? To answer these questions, several important points must be taken into account:

(1) Every evaluation of the 1946 Conference, and comparison with that of 1919, must start from the fact that World War II was of different dimensions from World War I. Huge as had been the losses and sufferings, the hatreds and antagonisms caused by World War I, the effects of World War II are far worse. It is, therefore, very noteworthy that while the 1946 Conference was acutely aware of, and colored by, the tensions created by the war, it was not confronted with a controversy of true magnitude, e.g., during World War II various far-reaching reforms in the very structure of Europe were advocated, such as the creation of the United States of Europe, or of several regional federations, among them a Balkan federation. If, as is well conceivable, the Conference had had to revolve around such issues, really fundamental differences of opinion would have emerged. In fact, it can be said that it was the absence of fundamental decisions which made the discussion on details sometimes so heated, because the tensions were unloaded on comparatively minor items.

(2) Furthermore, the seriousness with which these problems, including matters of procedure, were debated, was due to three main factors: (a) As Mr. Bidault emphasized in his valedictory speech, it was the first peace conference at which

nations, large and small, from the four corners of the globe, deliberated in parliamentary fashion. This created many entirely new problems, and was responsible for a certain nervism, particularly in the early stages of the Conference. (b) In addition, the Conference was also the first ever held which was entirely public, even in its committee meetings. Qualified observers were inclined to think that the principle of publicity was carried too far, because mutual concessions are more difficult to reach in the limelight, and the public heard more about the inevitably tortuous road to agreements than about the agreements themselves. (c) All delegations felt that the principles and techniques used at the 1946 Conference, would set precedents for the even more important conferences on the German and Japanese peace treaties which were still to come.

(3) Some critics maintained that it was a mistake to deal with the "periphery" of Europe while leaving the central issue, Germany, in suspense But, as the turbulent history of the postwar era of World War I showed, the regions which the Conference endeavored to normalize as quickly as possible, are far from "unimportant." In Eastern and South-Eastern Europe, during the aftermath of World War I, armed clashes occurred for years from Finland to Albania, including two full-fledged, sanguineous wars, the Polish-Russian war and the Turkish-Greek war In view of these experiences, the Allied leaders were justified when they believed that, by normalizing that area (much larger than Germany) which stretches from the French border to the Black Sea, and from the Arctic to the shores of Africa, would not only contribute to the stabilization and economic recovery of these regions but of the whole of Europe and, indeed, the world. Also, as subsequent events have irrefutably proved, the relative speed with which the 1919 Versailles Treaty was signed, cannot be said to have been beneficial. It was in recognition of the failure of the methods used in 1919, that, this time, the Allies decided to treat Germany differently. In 1919, they intentionally abstained from occupying Germany, and quickly concluded peace with her; since that method did not prevent Germany from unleashing World War II, this time the victors decided to keep Germany occupied for a lengthy period, and to hand power back to a German government (which alone can sign a peace treaty) only if and when they would be reasonably sure of a stable democratic development in Germany. (For similar reasons, they delayed the drawing of a formal peace treaty with Japan, although a Japanese government to sign such treaty would already exist.) On the other hand, the Allies were agreed that no need for delay existed in the case of Germany's ex-satellites in Europe.

(4) While there were deep cleavages at the 21-nation Conference of 1946—which were magnified by the unique method of public parliamentary procedure—the going was much rougher in 1919, although there were, in essence, only 4 participants (France, Great Britain, Italy, United States) who negotiated privately. As has been said before, the 1919 Conference, different from the 1946 Conference, had to break up without, e.g settling the Italo-Yugoslav frontier. Nothing similar to President Woodrow Wilson's leaving the 1919 Conference in disgust before it had ended, happened at the 1946 Conference.

(5) In fact, the United States in 1946 scored many more successes than in 1919; and it is altogether improbable that the United States will, this time, as it did after World War I, refuse to sign the peace treaties and, thereby, weaken decisively the stability of the whole postwar structure.

(6) Equally important is the changed position of Russia. The Soviet Union was not invited to the 1919 peace negotiations, and like the United States never signed the treaties. At that time, the Soviet System, hardly two years old, was struggling for its existence; German troops were still entrenched in various parts of Russia; and the apprehension lest the revolution spring over into Germany, was one reason for hastening the peace treaty with Germany. The Western Allies quickly settled their relations with Germany, at the price of leaving un settled, not only Germany's but their own relations with Russia. Thus, a significant element of insecurity was introduced into the world system

If, in 1919, Russia's weakness was permitted to leave her outside, in 1946 it was Russia's strength which created new problems. But now there was general agreement that it would be not only impossible but, from the standpoint of world peace unwise to settle matters without her At the 1946 Conference, the differences between the Western Powers and the Soviet Union were much in appearance, but, as Mr Byrnes said in his radio report on the Conference, there were "many questions on which the Soviet Union and the United States voted together," although this wide area of agreement "attracted little public attention" In the end, and profiting from the results of the Conference, the Big Four were able to have the treaties for Germany's ex-allies ready almost as soon as the other Big Four had been after World War I, and to achieve this in a spirit of greater harmony than in 1919. The collaboration of countries with different ideologies complicated, of course, the writing of the treaties, but that sharing of responsibilities was as unavoidable, in view of the distribution of power, as it was indispensable for world peace and stability.

For all of these reasons, the 1946 Peace Conference was a significant step toward a new, more democratic type of diplomacy, and compares favorably with the Paris Peace Conference of 1919

JOHN H. E. FRIED.

PATENT OFFICE, United States. Applications for the registration of trade-marks filed in the twelve months ended June 30, 1946, outnumbered those received by the Office in any equivalent period in its history. Their total was 26,216 Concurrently there were received 88,905 applications for patents the maximum since 1930 Of these 10,800 were for designs and 165 for new varieties of plants.

In consequence of this heavy increase in new applications and for want of additional personnel the issuance of patents was necessarily curtailed There were granted only 27,587, the minimum in any fiscal period in forty years. There were included in this total 3,384 for designs and 115 for re-issues.

Further evidence of greater activity on the part of inventors, industrialists, and merchants was afforded by the widespread interest in the Public Register initiated in May 1945 to promote and facilitate the sale and licensing of patents. In the first twelve months of its operation there were listed in the Register upward of 11,000 patents, among them a considerable number owned by two large corporations All patents recorded in the Register are published in the weekly *Gazette* of the Office and information concerning them is furnished directly to more than 2,000 manufacturers and to some 200 trade journals.

Receipts of the Office in the fiscal year reached

$4,852,773.30, or $724,651.30 in excess of those in 1945. Expenditures were $5,914,470.04. This rise in expenses was due to the higher cost of discharging the many duties of the Office.

In the calendar year 1946 there were filed 27,739 applications for the registration of trademarks, including 6,658 for renewals. That total was the largest received in any twelve months. The number of applications for patents filed in the same period was 91,994, exceeding that received in any year since 1930. Of these, 10,720 were for designs.

CASPER W. OOMS.

PERMANENT CHARITY FUND. A Fund established in 1915 by the Boston Safe Deposit and Trust Company to furnish a medium through which money may be left in trust to charity. The principal of the Fund is invested and the income distributed to existing organizations, usually of Boston and vicinity. Payments to charities during the fiscal year ended June 30, 1946, totaled $243,252 and capital assets on that date were $6,006,627. President: Roger Preston. Secretary: Arthur G. Rotch. Offices: 100 Franklin Street, Boston 10, Massachusetts.

PERMANENT JOINT BOARD ON DEFENSE—United States and Canada. A Board set up by President Roosevelt and Prime Minister W. L. Mackenzie King in pursuance of a joint communiqué dated Aug. 17, 1940, to "commence immediately studies relating to sea, land, and air problems including personnel and material" and "consider in the broad sense the defense of the north half of the Western Hemisphere." Chairman: U.S. Section, Fiorello H. LaGuardia; Canadian Section, Gen. Andrew G. McNaughton.

PERU. A republic of South America. Area: 482,258 square miles (1940). Population: 7,395,687 (1943). Capital: Lima.

The country is divided from west to east into three natural regions: the coastal area along the Pacific Ocean; the sierra, or central highland; and the montaña, a region east of the Andes including piedmont slopes and lowlands. The climate of the west coast is cloudy and cool, that of the highlands varies from very wet during the rainy season between October and April, to very dry; the montaña is excessively rainy and generally hot and humid. Temperatures vary according to exposure and altitude.

Population. According to the census of 1940, 53 percent of the population of Peru is white and mestizo, and 46 percent Indian Densities per square mile vary from 0.4 in the Department of Madre de Dios to 56.4 in the Department of Lima. The three largest cities are: Lima, 769,000, Callao, 95,601; and Arequipa, 85,369.

Spanish is the official language, but about half of the population speak Indian languages. The Roman Catholic religion is protected by the state.

The 1940 census showed 42 percent of the population to be literate; the highest proportion of literacy was reported from the coastal region, the lowest from the jungle area. In 1944 the five universities had a total student body of 8,500. In 1945 primary school enrollment totaled 717,162. Four national high schools, 27 normal schools, and 35 advanced training centers for teachers have recently been established.

National Economy. Peru's economy is principally agricultural and pastoral, but mining and manufacturing contribute substantially to the national income. Peru is the second largest producer of cotton in Latin America, the 1944 crop reaching 67,114 metric tons. In addition to cotton, sugar is an important export crop, while wheat, rice, corn, barley, oats, and potatoes are grown for home consumption. Production of sugar in 1944 totaled 444,000 short tons; of rice, 916,305 bags of 100 kilograms each. The livestock industry provides most of the local demand for meat. There were about 14 million sheep and 2.3 million cattle in Peru according to the 1941 livestock census. Wool (sheep, alpaca, llama, and vicuña) is an important export product; some hides and skins are also exported. The chief forest products are rubber and cinchona.

The petroleum industry is one of the most important factors in the economic structure of Peru; petroleum and its derivatives account for about 30 percent of the total mineral output of the country. In 1944 crude petroleum production totaled 14,385,926 barrels. Copper, gold, lead and silver are next in importance. Peru is among the four principal silver-producing countries of the world, although silver production has declined during the past ten years because of increased mining costs and the use of lower grade ores. Total production in 1944 was 492,444 kilograms. Copper production in recent years has been about 37,000 metric tons per year; in 1940, 44,000 metric tons were produced, in 1943 output was estimated at 36,572 metric tons. Peru produces about one-half of the world output of vanadium, as well as coal and zinc. The total value of mineral production in 1944 reached 390,000,000 soles.

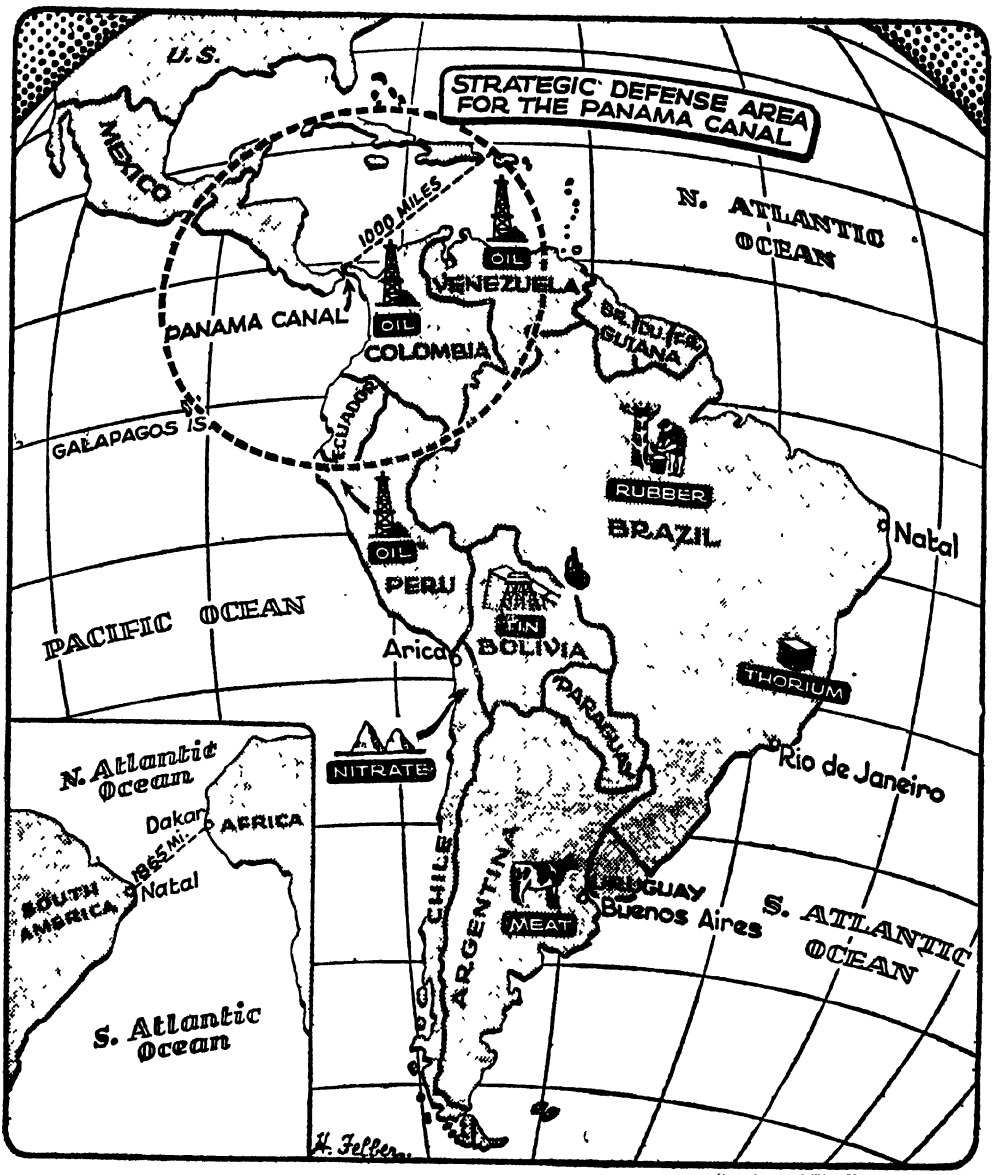
Peruvian manufacturing has developed considerably since 1929. Local industries now supply a large part of the home market for many types of consumer goods. The cotton textile industry is one of the most important manufacturing enterprises; other leading manufactures include woolen and leather goods, cement, chemicals, tobacco, glass, paper, foodstuffs, pharmaceuticals, and beverages

Foreign Trade. The value of Peru's foreign trade in 1945 amounted to nearly 1,224,415,904 soles, an increase of about 15 percent over 1944. Leading export items were: sugar, petroleum derivatives, copper, cotton, lead, mineral concentrates, wool, gold, flax, bismuth, elastic gums, silver articles, hides and skins, and fish. The United States took 34 percent of the total value of exports; Chile 19 percent; Bolivia 6; Great Britain 6.

Leading imports in 1945 were: wheat, machinery, rice, butter, wood, iron and steel, piping, jute bags, trucks and chassis, fertilizers, tires, rails, automobile parts, petroleum lubricating oils, and agricultural tools. The United States supplied 56 percent of the total value of Peruvian imports, Argentina 32, Chile 6, and Canada 5 percent

Government. Peru is a centralized republic of 22 departments, under its Constitution of 1933. It has a bicameral Congress: a Senate of 49 members, and a Chamber of Deputies of 152. The Congress meets annually on July 28 for regular sessions of 120 days. The President is assisted by a Cabinet of 11 ministers, and is elected for a 6-year term. Dr. José Luis Bustamante y Rivero was elected President on July 10, 1945, and took office on July 28.

Events, 1946. Peru opened 1946 with a Cabinet shake-up that ended with the assignment of three ministries to members of the APRA (People's Party). The event marked the first time members of Peru's strongest leftist party were given responsibility in the Government. Previous to the Cabinet crisis, the APRA party members, under the leadership of Victor Raúl Haya de la Torre, preferred to remain in the political background and exert their strong influence in promoting the passage of desired legislative measures. When President Busta-



Courtesy of The New York Times

SOUTH AMERICA AND HEMISPHERE DEFENSE

mante realized that Aprista strength could not be denied, he assigned ministries—Treasury and Commerce, Agriculture, and Public Works—to *Aprista* leaders.

The revamped Cabinet included: Dr. Julio Ernesto Portugal, Prime Minister and Public Health; Dr. Luis E. Valcárcel, Education; Dr. Ismael Bielich, Justice and Labor; Engineer Enrique Góngora y Pareja, Aviation; Dr. Manuel Vásquez Díaz, Treasury and Commerce; Engineer Luis R. Vgarte, Agriculture; Engineer César Elías, Public Works; Gen. Manuel E. Rodríquez, Interior; Dr. Enrique García Sayan, Foreign Affairs; Col. Antonio Luna, War; Rear Admiral Enrique Labarthe, Navy.

By April the APRA party was recognized as the power behind the Government. After fifteen years of underground activities, the *Apristas* vigorously prepared to push their program leading to nationalization of land and industry, rehabilitation of the Indians and the creation of a National Economic Council for raising the general standard of living On April 13, *Apristas* dispersed an anti-Government demonstration in Lima and attacked the offices of the conservative newspapers *Cascabel, Hoguera, Vanguardia* and *La Prensa.* After police broke up the angry mob, Government Minister General Manuel Rodríguez dismissed Police Chief Jorge Dulanto for neglecting his duty by not controlling the riot.

In the supplementary Congressional elections held on July 2 the position of the APRA party was strengthened by the election of two *Aprista* Senators and eleven Deputies, which left the opposition only two seats in the Senate and four in the

Chamber of Deputies. With indisputable control of both houses of Congress, the *Apristas* launched a campaign to borrow money from the United States. The opposition to the plan, mostly among the cotton and sugar plantation owners, fought against the scheme for fear that the funds would be used for APRA's industrialization and irrigation program. By November 9 Congress approved a bill authorizing the Government to borrow up to $30,000,000 from the United States Export-Import Bank.

A minor diplomatic strain resulted from a clash between United States Army and Peruvian Navy personnel at Talara on July 28 that ended with serious injury to a Peruvian ensign and the fatal injury of an American noncommissioned officer. The United States Embassy apologized and agreed to place the United States soldiers involved at the disposal of the Peruvian courts.

In late October the United States returned to Peru the Talara airbase, one of the key stations in the wartime Panama Canal defense system. The first commercial air agreement between Peru and the United States was negotiated on December 28, authorizing the United States airlines to operate within Peru and granted reciprocal rights to Peruvian airlines.

A series of earthquakes beginning on November 10 lasted for 48 hours in the region 200 miles north of Lima, causing the deaths of at least 700 persons and destroying several towns. United States Army personnel participated in the rescue work by parachuting into inaccessible regions isolated by the work of the earthquake. The towns of Conchucos and Sihuas were destroyed.

PETROLEUM CONSERVATION DIVISION. A Division of the U.S. Department of the Interior, established in 1936 to assist the Secretary of the Interior in administering the Connally law, which prohibits the shipment in interstate and foreign commerce of petroleum or its products produced in excess of the amount permitted by State law. By Executive Order 9732, dated June 3, 1946, the President designated the Oil and Gas Division, in place of the Petroleum Conservation Division to assist the Secretary in administering the above law.

PHILANTHROPY. The upward swing in American philanthropy, which has been in progress during the war years, was continued in the first postwar year, according to indications in the annual study made by The John Price Jones Corporation.

This study, which covers publicly announced gifts and bequests in eight large cities, shows that for the first eleven months of 1946 gifts and bequests in these cities totalled $246,637,329 as compared with a total of $209,306,297 for the full year of 1945. This eleven-month report indicates an increase of 17.84 percent over the 12 months of 1945, which showed an increase of 18.57 percent over 1944.

Publicly announced bequests for 1946 in the cities studied—New York, Baltimore, Boston, Chicago, Los Angeles, Philadelphia, St. Louis and Washington, D.C.—totalled $24,694,552, compared with $18,171,649 in 1945, a gain of 35.90 percent.

Gifts in the first 11 months of 1946 were $221,942,777 as compared with $191,134,648 in 1945, an increase of 16.12 percent.

American interest in war projects and foreign relief, in the first rehabilitation year, was evidenced by the fact that the largest totals of gifts were classified as follows: $55,830,280 to foreign relief; $33,043,895 to combined community funds and war chests; $32,398,660 to American war organizations such as the USO and Red Cross. Gifts in other classifications were as follows: $35,129,923 to education; $41,177,840 to organized social work; $17,079,547 to health and $5,266,025 to religious purposes.

New York led other cities in gifts during 1946. The total gifts for the cities studied were: New York $119,359,476; Baltimore, $12,215,185; Boston, $20,940,967; Chicago, $10,978,589; Los Angeles, $15,299,902; Philadelphia, $18,968,460; St. Louis, $10,425,888 and Washington, D.C., $13,754,310.

PHILIPPINE ISLANDS. A group of islands in the Western Pacific Ocean, ceded to the United States by Spain on April 11, 1899, conquered by Japanese armed forces in 1942, and liberated in February 1945 The Tydings-McDuffie Act of March 24, 1934, created the Philippines an autonomous commonwealth, and provided for them to become fully independent on July 4, 1946.

Area. The combined area is 115,600 square miles. This comprises 7,083 islands, of which only 466 cover as much as one square mile apiece. Two islands, Luzon (40,814 square miles) and Mindanao (36,906 square miles) account for more than two-thirds of the whole area Others, with their respective areas in square miles, are Samar, 5,124, Negros, 4,903; Palawan, 4,500, Panay, 4,448; Mindoro, 3,794; Leyte, 2,799, Cebu, 1,695; Bohol, 1,534; and Masbate, 1,255.

Population. According to the latest estimates of the Bureau of the Census and Statistics, the 1946 population of the Philippines was approximately 18,846,800, as compared with 7,635,426 in 1903; 10,314,310 in 1918; and 16,000,303 in 1939. The Christian Filipinos of Malay extraction constitute over 95 per cent of the total population Several pagan tribes of semi-civilized Malays inhabit the mountainous regions in Luzon. The Moros, who profess the Mohammedan religion, are concentrated chiefly in Mindanao and the Sulu Islands.

Government. The Government of the Commonwealth is republican in form, of the presidential unitary type, based on the principle of the separation of powers. The executive power is vested in a President, the legislative power in a Congress composed of the Senate and House of Representatives, and the judicial power in a Supreme Court and other inferior courts. At the head of the Government is the President, who is elected by direct vote of the qualified electors of the country for a term of four years. He exercises control of all executive departments, bureaus, or offices, including provincial and municipal governments; determines general policies; guides legislation; and, with the consent of the Commission on Appointments of the Congress, appoints the heads of the executive departments and bureaus, the members of the Supreme Court and judges of inferior courts, and ranking officers of the Philippine Army, of which he is the Commander-in-Chief. In case the President dies, resigns, or is removed or unable to serve, his powers devolve upon the Vice-President, who is also elected by the direct vote of the people. The legislative power is vested in the Congress of the Philippines composed of two chambers—the Senate with 24 members elected at large by the direct vote of the qualified voters and the House of Representatives with 98 members (not to exceed 120) elected from the 98 Congressional Districts into which the Philippines is presently divided. The Senators are elected for a term of six years, while the Representatives hold office for four years.

Events, 1946. The people of the Philippines entered the most significant year in their history in 1946 as they prepared to elect a President and Congress in April and accept their independence as a republic on July 4. With the approach of sovereignty, the islands found themselves burdened by the creations of a war—a disrupted economy, poor communications, insufficient food, a severe housing shortage, and an inflated currency. The most critical problem among the inhabitants of the 7,000 islands was a shortage in staple foods. Sugar production met only one-tenth of domestic requirements and rice production was crippled because work animals had been used as food by the Japanese.

In addition, the Filipinos awaited some revision in the Tydings-McDuffie Act of 1934, which provided for their independence as a free state, but also stipulated that they would lose most of their preferential trade status with respect to the United States, their best customer. Paul V. McNutt, High Commissioner for the Philippines, urged Congress to aid the Philippines in their rehabilitation by speedy enactment of the Bell Act which would guarantee Philippine-American free trade for eight years and then institute a gradually rising tariff scale On February 12 Brig. Gen. Carlos P. Romulo, Resident Commissioner of the Philippines, requested $100,000,000 in United Nations Relief and Rehabilitation Administration supplies and food to take care of about 1,500,000 Filipinos.

The two major candidates in the election campaign were the incumbent President, Sergio Osmeña, who succeeded to the Presidency after Manuel L. Quezon died on Aug. 1, 1944, and Manuel A Roxas, President of the Philippine Senate. The Nacionalista party supported both candidates. Mr. Roxas attempted to evade an election based merely on a personality issue by campaigning under the banner of "liberalism." However, the leftist and liberal groups supported Mr. Osmeña as the election approached. Mr. Roxas, a highly controversial figure because of his ex-officio cabinet post in the puppet Philippine Government during the Japanese occupation, gained the support of the more conservative elements among the voters. His claims to leadership of the wartime resistance movement were supported by Gen. Douglas A. MacArthur.

On April 23, three million eligible voters, of the 17,000,000 population, elected Manuel A. Roxas President and Senator Elpidio Quirino Vice-President.

The critical condition of Philippine economy brought assistance from the United States in the form of the Philippine Trade Act and the Philippine Rehabilitation Act, which were passed by the United States Congress on April 30. The Philippine Trade Act, also known as the Bell Act, was accepted by the Philippine state on July 3. The Trade Act provided for free trade between the two countries for eight years, after which incoming Philippine products are to be taxed at the rate of 5 per cent, with an additional 5 per cent each succeeding year, over a span of twenty years. At the end of the prescribed period Philippine products will be assessed full duties. The Rehabilitation Act provided for the granting to Philippine war damage claimants of $400,000,000 in war damages, the disposal without reimbursement of $100,000,000 in surplus property and the spending of $120,000,000 in various rehabilitation and training projects.

President-elect Roxas announced his firm intention of strengthening relations with the United States and encouraging United States participation in Philippine economic life. In an interview on May 11 he extended an invitation to United States capital, predicting that his nation would need financial aid for five years. Shortly afterwards he guaranteed to the United States the continued existence of army, navy and air bases on Philippine territory and promised full cooperation in all defense and security measures.

Formal proclamation of the election of Manuel A. Roxas as President was delayed in the Philippines Senate on May 25 when minority members walked out after a dispute over the number of votes needed to organize the upper chamber. In the prewar Senate, sixteen members were required for a quorum. The Roxas Senators claimed the old rules were not valid; the minority contended they still applied. Underlying the argument caused by a lack of rules procedure was a further rift which arose when minority leader Tomas Confessor challanged the seating of three Roxas Senators on the grounds that they were under indictment on charges of collaborating with the Japanese. Despite the walkout twelve majority Senators on the following day proclaimed the election of Manuel A. Roxas and approved a resolution barring three Senate supporters of outgoing President Osmeña from taking oath of office.

President-elect Roxas took his oath of office on May 28 and appointed the following Cabinet:

Finance—Elpidio Quirino
Interior—José Zulueta
Justice—Judge Roman Ozaeta
Agriculture and Commerce—Mariano Garchitorena
Public Works—Ricardo Nepomuceno
Public Instruction—Manuel Gallego
Health and Welfare—Dr. Antonio Villarama
Labor—Pedro Magsalin
National Defense—Ruperto Kangleon
Chief of Executive Office—Emilio Abello

In submitting his 1946–1947 budget to the new Congress on June 8, President Roxas estimated that the Philippine Republic would be almost 248,000,000 pesos ($124,000,000) in debt at the end of the first year's operation in July, 1947. He put total resources down to less than 6,000,000 pesos and predicted an unbalanced budget for at least five years with a major portion of the income depending on requested loans from the United States. Previous to his election victory, President Roxas visited Washington and requested a $400,000,000 loan in five yearly installments from the United States Government and an additional loan of $250,000,000 for self-liquidating reconstruction projects from the Export-Import Bank.

The Republic of the Philippines was born on July 4 to the accompaniment of a pledge from President Truman that the United States "will continue to assist the Philippines in every possible way." In Manila, President Roxas was formally inaugurated as the first President of the Republic in the presence of Gen. Douglas A. MacArthur, Supreme Allied commander in the Far East, and Paul V. McNutt, who had been nominated Ambassador to the islands by President Truman on June 14.

Attempts to repair the disabled economy were hampered by continued military activities forced by the presence of wandering bands of die-hard Japanese units among the Islands and serious civil unrest in central Luzon, where the Hukbalahaps refused to recognize the Roxas Government. The mopping up of an estimated 4,000 Japanese was conducted by Philippine troops, armed with United States weapons and commanded by United States Army officers.

The Hukbalahaps, who entrenched themselves in the rice-growing plains of Luzon, comprised about 150,000 ex-guerrillas who had waged fierce

warfare against the Japanese. After the defeat of Japan, they turned their fight against the absentee proprietors of the land and set up their own civil, military, and administrative procedures. Reporters from the American-owned *The Manila Daily Bulletin* made first-hand investigations and described the Hukbalahaps as an organization predicated upon pattern of communism. They set up their own courts, levied taxes, maintained their own marriage and divorce ceremonies, divided crops, and conscripted men for their armed forces.

The promise by the newly-installed Roxas Government of the swift surrender of 11,000 "Huks" on June 1 never materialized as intermittent fighting continued. José de León, a powerful chief of the dissidents agreed to cooperate with the pacification program if the Government first would seat the seven Congressmen of the Democratic Alliance (the political party of the Hukbalahaps), including the Hukbalahap supreme leader Luis Tarac, by declaring the April elections in central Luzon valid and then recognizing the Hukbalahap guerillas for veterans' benefits. During the Summer, Tarac conferred with Government officials over the "Huk" demands, which were based on agrarian reforms. Claiming that they represented the tenant farmers, who for years had suffered under a fifty-fifty crop split with the landlords and had to pay all their own expenses, the "Huk" leaders demanded a sixty-forty crop split, with expenses shared equally by tenant and landlord.

President Roxas declared he would not "trade concessions for observance of law" and set an August 31 deadline for the relinquishment to the Government of all illegally held arms. On September 2 the Government began wholesale arrests of peasant leaders and used artillery against insurgent bands operating in the mountains sixty miles north of Manila.

President Roxas quickly moved to present a stalemate in the Judiciary Department on July 10 when the Congressional Committee on Appointments refused to confirm some 800 judicial appointmentees named during the Osmeña administration. The Committee members held that subject judges, prosecutors, peace justices, and minor officials had been appointed in temporary capacity, which was unconstitutional. Function of the judicial system immediately stopped and pending cases were suspended. On the same day President Roxas appointed 117 new and old judges, covering key positions vacated by the Committee's actions, then called the Committee into a special session to consider the appointments.

During the spring the United States Congress passed a bill approving a $75,000,000 loan to the Philippines to meet the budgetary requirements of the new Republic. The bill in its original form provided for a $100,000,000 loan, which was supported by Ambassador McNutt. However, the House Banking Committee acted on the advice of U.S. Treasury Secretary John W. Snyder and William N. Clayton, Assistant Secretary of State.

The Transfer to the Philippine Republic of "practically all United States surplus property now in the Islands" was announced by both governments on September 11. The sale was made at 21.4 percent of the original procurement value of $630,000,000. Neither military equipment nor aircraft were included in the transfer.

The Philippine Trade Act contained a proviso that raised a flurry of controversy in the new Republic's Congress. Validity of the Act depended upon the Philippine's granting United States nationals equal rights with Filipinos in the development of the country's national resources. Conflict with this stipulation arose in the provisions of the Philippine Constitution which stated that all corporations dealing with resources and utilities must have at least 60 per cent Filipino membership and capital. After vigorous opposition by part of the Nacionalista Congressmen on the grounds of "imperialist exploitation," both houses of Congress on September 15 approved a national plebiscite for a constitutional amendment complying with the Philippine Trade Act.

During a special session of Congress on September 25, President Roxas proposed a reconstruction plan aimed to hasten the agricultural and industrial development of the Philippines and make his country less dependent on the United States. He asked Congress for authority to create a Rehabilitation Finance Corporation, patterned after the American Reconstruction Finance Corporation. Capitalized at about $150,000,000, the corporation would be empowered to grant loans to private individuals or corporations for the rehabilitation or development of agricultural, commercial, or industrial enterprises; to make loans to Government corporations for self-liquidating projects, including waterpower development, public utilities, irrigation systems, water works, resettlement projects and purchase and subdivision for sale of landed estates, to make loans to cities, towns and provinces for self-liquidating projects, to underwrite agricultural marketing and consumers' cooperatives and to grant home-building loans to individuals.

A war profits tax bill, imposing a graduated tax of 60 to 99 per cent on business profits in excess of 6,000 pesos from the beginning of the war to liberation, was signed by the President on Oct. 15.

During the term of the Japanese occupation, many prominent government officials and civic leaders were coerced or induced into joining the puppet regime sponsored by the Japanese. In early August charges of collaboration were filed in the People's Court against the former puppet President, José Laurel. Pleading for his release on bail, Laurel said that by October, 1942, "all Filipinos were collaborators," forced into submission by Japanese acts of duress, coercion and inhuman massacre. He brought the court's attention to the fact that President Roxas had served in the same puppet government. Since the United States was unable to defend the islands, he argued, it was necessary for Filipino officials to serve the Japanese in order to minimize the suffering of the whole people.

After his release from prison on bail, Laurel engaged in vehement denunciation of the proposed constitutional amendment to grant United States "parity rights" in the Philippines.

As the Philippines progressed from commonwealth status to a republic, relations between the Filipinos and the United States occupation forces became strained. General MacArthur attributed the ill-feeling to an "understandable feeling of nationalism on the part of the Filipinos." By October anti-American sentiment had reached a new high. In his report to United States Chief of Staff, General Dwight D. Eisenhower, General MacArthur placed responsibility on the low morale of raw recruits and resentment of Philippine nationals towards the presence of foreign troops. Added factors included the rise in criminal cases among the soldiers, the overcharging on purchases made by U.S. troops, and resentment over continued Army "squatting" on private property. On October 10 President Roxas claimed that some United States soldiers had engaged in spreading Communist propaganda in the Philippines.

The War Department took action on November 2 to remedy the condition by tightening discipline and improving the indoctrination of replacement troops, who would be, in the future, volunteers rather than draftees.

In early November Manila's city laborers began a strike—originally stimulated by a reduction in living allowances—that developed into a major issue concerning labor's right to strike against the Government. The workers, employed in the essential services of garbage collection, street cleaning, and burial of the dead had been receiving a supplemental allowance of five to ten pesos daily to protect them against inflational living costs. President Roxas interpreted the strike as a seditious movement and ordered the arrest of any men found picketing. By picketing, which was viewed as intimidation, the unions violated a Philippine law which held that preventing "the national Government or any municipal or provincial Government or officer thereof from freely exercising its or his functions or preventing the execution of any administrative order" would be construed as inciting to sedition.

The effectiveness of the strike was greatly reduced in mid-November by Manila's Mayor V. Fugoso, who used other Government workers to perform essential city functions. The local Congress of Industrial Organizations, the Philippine counterpart to the American CIO, still maintained the strike, but its effectiveness was actually broken by police-protected workers who replaced the strikers

The projected national plebiscite, scheduled for March 11, 1947, for amending the Constitution to provide certain rights for Americans, received the support of President Roxas on November 19 Speaking before the student body of the University of the Philippines, the President predicted wide economic disaster if the proposed amendment were rejected. Most of the objection to the amendment was based on the term "equal rights," which the President called a misnomer. American citizens would not be granted equal rights, he said, but only special rights with regard to the development of natural resources and ownership of public utilities. If the amendment were ratified, engineers, miners, and technicians would be granted special rights to the benefit of the Philippines, he said, since these skills were much needed.

The several months' negotiations concerning United States military bases in the Philippines approached their final stages as the year closed On November 30, President Roxas announced that agreement had been reached permitting the United States to establish bases on the Islands for mutual defense. While the basic principle of mutual defense was accepted, the details concerning the size, location, and character of the bases remained under discussion, with indications that the Philippines Government objected to many aspects of the United States Army and Navy desires.

The Philippines' road system, which had suffered severe destruction during the war, received aid on December 12 from the United States Public Roads Administration in the form of $9,960,000 allocation for highway construction. The Philippine Government was requested to provide an equal sum for 1947 construction. The allocation started a $100,000,000, four-year program of road construction which was part of a more extensive rehabilitation plan to improve ports and harbors, schools, hospitals, air transport, the fishing industry and public health. Also included in the program was a broad personal training program for Filipinos.

The first advance payment by the United States for war damage to public property in the Philippines was made on December 16 by Dr. Frank A. Waring, chairman of the War Damage Commission. The installment of $1,000,000, part of the $620,000,000 eventually to be paid, depending on the outcome of the plebescite on the Constitutional amendment, was handed to President Roxas, after Dr. Waring explained the Commission's operations to a conference of provincial governors. Ten offices would be established throughout the Islands to process personal claims, which the Rehabilitation Act limited to $500 each. Originally, about 1,000,000 claimants had been anticipated, but later developments indicated that the Commission might expect more than 3,000,000 personal claims.

On December 21, President Truman announced that the Philippine Congress had accepted the July 4 trade pact with the United States, providing for eight years of free trade between the two countries.

Economy. Philippine exports consist principally of raw materials and semi-manufactured products, while the imports are mainly manufactured or semi-manufactured goods. The Islands sell raw sugar, copra, abaca, tobacco, gold and other metallic and nonmetallic minerals, lumber, and such processed or manufactured goods as coconut oil, copra, cigars, rope, embroideries, fiber hats, cabinet woods, rattan manufactures, pearl buttons, guns, and resins. In exchange for these products the Philippines receives a variety of manufactured articles, including iron and steel products; chemicals, drugs, and dyes; automobiles, trucks, and parts; cotton and manufactures; silk and rayon; meat and milk products; vegetables, fibers, and products; paper and paper products; fertilizers; tobacco products; machinery of all kinds; leather and its products; flour; rubber products; oil products; fruits and nuts.

With the total dislocation of Philippine export industries the immediate resumption of the export trade of the Philippines cannot be expected. Almost all of the major industries as well as the minor ones have been paralyzed, and experts believe that they cannot attain prewar levels of production until after four years of rehabilitation, assuming that rehabilitation materials will be forthcoming at an early date. Two major industries—copra and hemp—have made initial production but in quantities far below even the requirements of the United States Army alone. Through the encouragement of the U.S. Commercial (CEMCO) and the Philippine Abaca Management Company (PAMCO), production and shipments of abaca and copra are expected to gain headway in the coming months.

The export in 1945 of copra, which was evidently produced in minor copra-producing regions, was about 9,000 tons, of which 400 tons were shipped in September, 1945. The total value of copra exported is not definitely known, but it is estimated that the aggregate may amount to approximately 1,000,000 pesos.

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PHOTOGRAPHIC PROGRESS. In the first peacetime year following the second world war, it is an ironic commentary on mankind that the most photographed event was the atomic bomb tests in Bikini Lagoon in the Pacific. These tests, known as "Operation Crossroads," were recorded by more than 500 cameras, ranging from 16-mm and 35-mm motion picture cameras, to press cameras, aerial cameras of many sizes, and telephoto cameras with lenses as great as 48-inch,—all trained on one area in the lagoon to record the first explosion over and

under water of this terribly destructive bomb. More than 100,000 still pictures and 3 million feet of film were exposed during the tests on July 1 and 25, not including the many thousands of pictures taken by the press and newsreel cameramen. Batteries of cameras were installed on high steel towers around the lagoon, in airplanes such as C-54s, F-13s, PBMs, and TBMs, on destroyers and target ships. Four B-17 "drone" airplanes were also equipped with cameras. Many of the cameras were operated by electronic controls from remote stations. Specially-trained underwater cameramen photographed the underwater damage to the ships. Panchromatic, infrared and color films were used as well as films specially sensitized to different parts of the spectrum. An ultra speed streak camera photographed the explosion during the first few mili-seconds and batteries of high speed cameras loaded with color films made complete records of the tests. Many weeks of rehearsal were necessary in order to insure the smooth working of all of the camera crews when the zero "second" arrived. Interpretation of the photo-records was expected to reveal much useful data on the characteristics of this powerful bomb. (*U.S. Camera* 9: 21, September 1946; also *Internat. Phot. 18*: 5, September 1946; *Amer Cinemat.* 27: 352, October 1946).

During the year the United States Army released more information on the types of cameras used to photograph radar screens, and it was predicted that such equipment would find many applications in the extensive use to be made of radar apparatus. The cameras were designed as a part of a chamber fitting over the radar screen and in some cases included a viewing device, where the operator could observe the screen as he photographed it. On January 22, a radar signal echo from the moon was recorded photographically by the U.S. Army Signal Corps. Striking radar pictures of an approaching hurricane were released by the U.S. Navy.

Scientific exploration of the upper air was carried on with the aid of special cameras installed in rockets. Previously such tests were conducted from free and from controlled balloons The highest altitude from which a good photograph of the earth had been taken was 72,395 feet, which was attained by the balloon, Explorer II, on November 11, 1935. Several V-2 type rockets were launched from the U S. Army base at White Sands, New Mexico. One of these reached a record speed of 3,600 miles an hour and sped 102 miles from the earth. Eight gun-type 16-mm cameras were installed in the rocket, of which six, were loaded with black-and-white, and two, with color film. Five of the eight cameras were recovered and the film records from an altitude of 40 miles were "reproduceable" but those from 100 miles were blurred by vibration. The photographs were made at rates of 16, 32, and 64 pictures per second with lens openings ranging from f/8 to f/16. In future tests, high speed shutters will be used in hopes that clear pictures will be obtained at 100 miles or higher above the earth's surface (*Rochester Democrat and Chronicle*, October 20, 1946). A special spectrograph, built by Bausch and Lomb Optical Company, was installed in a rocket that was fired on October 10. The photographic record showed forty spectrograms of the sun at various altitudes up to 65 miles. Above this height, rotation of the rocket turned the spectrograph away from the sun (*Rochester Times-Union*, October 30, 1946). The first night test was made on December 17, when a rocket ascended to the record height of 114 miles. Good photographs were made of the exhaust flames and incandescent fins of the rocket. These and other photographic studies were expected to add much valuable data to man's knowledge of the upper air.

Thomas and Coles published data on the various types of specialized photography as applied to engineering problems of the U.S. Army Air Forces (*J. Soc. Mot. Pict.* Eng *46*: 220, March 1946). Brief details of initial tests of the first photographic equipment to be installed in a jet airplane, the XFP-80A, were released Improved quality in aerial photographs, from altitudes as high as 35,000 feet, was reported and the installation was said to have quick interchangeability (*Amer. Cinemat.* 27: 186, May 1946).

Color Photography. Public interest in processes of color photography appeared to be growing rapidly, and it was satisfied in part by an increase in the quantity of color films and printing materials available over the previous year. Great interest was shown by professional and amateur alike in the new color sheet film called Ektachrome, that was exhibited in August at the Chicago convention of the Photographers Association of America. This product represented an adaptation of Kodacolor Aero Reversal film that was introduced in 1940 and used throughout the war by the armed forces. The new film is especially applicable to commercial, illustrative photography. It is a color monopack that can be reversal developed by the user to produce a positive color transparency. Dye-forming couplers are dispersed during manufacture in the three emulsion layers. Total processing time is 90 minutes (*Internat. Phot. 18*· 18 September 1946). For color prints from Ektachrome and other color transparencies, the Eastman Kodak Company recommended their Dye Transfer Process which was announced in 1945. This process uses a tanning developer, a special set of dyes for rapid transfer, mordanted paper, and a simple device to insure accurate registration of the three transferred dye images

In March, Ansco Color roll film was placed on the market by the Ansco Division of the General Aniline and Film Corporation. Other color products of this firm included a sheet film, 16-mm motion picture film, 35-mm miniature camera film, and a printing material known as Printon. This last-named product was used by several color printing laboratories for making amateur color prints. Robins and Varden described semi-automatic developing and printing machines used by one of these printing laboratories, Pavelle, Inc., New York (*Electronics 19*: 110, June 1946).

At the annual convention of the Photographic Society of America held October 30 to November 2 in Rochester, New York, Hanson and Vittum described a new chemical invention in color photography, the use of colored couplers in a negative color film. To avoid a degradation in quality in the final print resulting from unwanted absorption in the color negative of blue and green light by the cyan dye, and of blue by the magneta dye, they worked out colored couplers which absorb the unwanted blue and green. When the color negative is processed, the image consists of a negative of the normal dyes and a positive of color couplers remaining in the film. When a print is made from this dual image, all the colors were said to have better saturation and hue, and the brightness of the blues, yellows, and reds was improved over that of similar prints made from color negatives without colored couplers.

Aerial photography in color was reported to have the advantage over ordinary photography of

providing greater depth perception. Desirable beach landings in Okinawa were appraised accurately from inspection of aerial color pictures of the island (*Sat. Eve. Post 218*: 26, May 18, 1946). Continuous-strip stereo color pictures of the bomb damage to Japanese cities were projected by the U.S Army Air Force on the opening night of the exhibition of the Photographic Society of America on October 31, in Rochester, New York The pictures were on Kodacolor Aero Reversal film and had been exposed during the summer of 1946 under the supervision of Colonel George Goddard by order of General Carl Spaatz. A special twin-lens polaroid projector enlarged the seven-inch wide film onto a screen, about 10 by 15 feet in size. Viewed with polaroid spectacles, the resultant pictures gave an impression much like a flight over the area in a glass-bottomed airplane. Kistler described the operation of this camera, it use during wartime, and possible applications (*Photogrammetric Engineering 12*: 219, June 1946).

Additional details were published during the year, in the United States and in England, of the reports of military investigators in Germany, who studied the production and processing methods used for the Agfacolor negative and positive film and color paper. (*Report No. 339*, Publication Board of the War and Navy Departments of the United States; also *Photo. Trade Bull. 7*: 451, July 1946; *Brit J. Phot. 93*: 263, July 26, 1946).

Dufaycolor, which is one of the few remaining additive color processes that is used commercially, was said to have been improved during the war period. A finer ruling of the screen réseau was reported to give better color rendering (*Brit. J. Phot. 93*· 119, April 5, 1946).

Parallel with the growing interest in color processes was the expansion of the reproduction of color photographs in the photo-magazines, such as *Saturday Evening Post, Life, Coronet, Look,* and *National Geographic.* Many of the earlier engraving problems had been overcome and the quality of the reproductions was generally improved. Spot news color pictures occasionally were being used in metropolitan daily papers. The Chicago Tribune had an entire page of color photos of the Easter parade on the press thirteen hours after the unprocessed films were received (U.S. Camera *9*: 47, July 1946). A color picture of the Shrine parade in San Francisco was said to have been printed in color within ninety minutes after the negatives were received (*Popular Phot. 19*: 154, November 1946). Outstanding color pictures reproduced in Life magazine during the year included a remarkable series of forty-eight photos of war surgery in the issue of February 11; the Consistory for the Cardinals in Rome shown in the issue of February 18; and the chemical analysis of Plutonium and Neptunium in the issue of July 8. Stroboscopic high speed flash color was also used to a limited extent for illustration, press, and advertising purposes (*Internat. Phot. 18*: 10, July 1946). An example which appeared on the cover of Look for June 25 showed a prize fighter landing a knockout punch. Details of masking Kodachrome transparencies for reproduction were described in the *Graphic Arts Bulletin* (No. 8—1946).

In the professional color motion picture field, Technicolor was still used for the majority of feature pictures and shorts although several production releases were made by two-color subtractive processes such as Cinecolor, Magnacolor, and Trucolor. In June it was reported that Republic Pictures were planning sixteen feature pictures by their Trucolor process (*Mot. Pict. Herald 163*: 21, June 22, 1946). Special filter techniques to give improved color rendering in Technicolor were described by Rennahan who also said that it required a crew of five persons to handle and operate the 700-pound Technicolor camera (*Amer. Cinemat. 27*: 356, October 1946). For some of their pictures, Technicolor used 16-mm Kodachrome and 35-mm monopack films.

Fernstrom described the Rotocolor system for producing motion pictures by means of a special camera and optical printer In the camera, 16-mm Kodachrome film (perforated on one edge) moves horizontally past the aperture and the resulting picture image is almost as large as that obtained in a 35-mm camera. The film is printed in optical printers which enlarge the images slightly from those on the 16-mm film; thus 720 feet of 16-mm pictures make up 900-feet of 35-mm pictures (*Internat. Phot. 17*: 11, January 1946).

Two interesting surveys on color photography were published: one dealt with current processes of color cinematography in England (*Amer. Cinemat 27*: 164, May 1946); and the other covered a hundred years of color (*Phot. J. 86A*: 187, August 1946). British patents of 1941–1946 in color photography were classified and reviewed (*Brit. J. Phot. 93*: 164 et seq. May 10, 1946).

Motion Pictures. At the conclusion of their war-work schedule in the fall of 1945, the motion picture studios resumed their peacetime task of providing entertainment for the box-office patrons who each week average about 85 million paid admissions in the United States. Production of pictures was also growing in Mexico and several countries in South America. Studios in England and France began to resume production. It was also learned by military investigators that the German studios had been able to maintain a fair production schedule during most of the war and had made several feature pictures by the Agfacolor process.

The fiftieth anniversary of the first showing of motion pictures in a theater, Koster and Bial's Music Hall, New York, was celebrated appropriately on April 23. Although the Music Hall had been torn down years ago, Thomas Armat, the inventor of the motion picture projector, was living quietly at his home in Rock Creek Park in Washington, D.C. The projector he used for that première showing embodied certain basic features, such as a loop-forming means, and an intermittent movement that gave relatively longer periods of rest and illumination than the time needed for movement from picture to picture. Another significant anniversary was the twentieth for sound pictures since they were first introduced successfully as a major feature of a theater program. On August 6, 1926, the Warner Brothers' production, *Don Juan,* with musical background, was shown at the Warner Theater in New York. Illuminated scrolls were presented to Armat and Warner Brothers in May 1946 by the Society of Motion Picture Engineers. In October, scrolls were also presented by this Society to the following firms who had made major contributions to the development of the sound motion picture: Bell Telephone Laboratories, Inc.; Radio Corporation of America; General Electric Company; Westinghouse Electric and Manufacturing Company; Twentieth Century-Fox Film Corporation; Western Electric Company, Inc.; Metro-Goldwyn-Mayer Studios. A scroll was also presented to Lee DeForest in recognition of his original researches which resulted in the invention of the three-electrode vacuum tube.

The year also marked the twenty-fifth anniversary of the world's best known group of camera-

men, the American Society of Cinematographers. Historical articles on the development of sound motion pictures were published by Watkins (*Bell Lab. Record 24*: 289, August 1946) and by Levinson (*Scientific Monthly 63*: 101 et seq, August 1946).

At the semi-annual meeting of the Society of Motion Picture Engineers in New York in May, and in Hollywood in October, technical progress in motion pictures was discussed under various headings, such as apparatus, color, film processing, lighting problems, projection, standardization, sound recording and reproduction, and television. In England, technical progress was reported in the *Journal of the British Kinematographic Society*. Past and future activities of the American Society were summarized in a paper by Hyndman and Maurer, before a joint meeting of the British Society and the Royal Photographic Society held in London on April 10 (*J. Soc. Mot. Pict.* Eng. *47*: 212, September 1946).

Ever since the introduction of sound into the motion picture in 1926, there has been an increasing demand for trained technicians by the motion picture industry. This demand was met in part by the introduction of special courses by colleges throughout the United States. Information on the types of courses being taught was compiled in outline form and published by Frayne (*J. Soc. Mot. Pict.* Eng. *47*: 95, August 1946). Another interesting report dealt with the activities of the U.S. Army Pictorial Service throughout the war (*Business Screen 7*: 1–98, January 1946). Brooker discussed the plan and experience that went into the 457 industrial training films which were made by the United States Office of Education, 1941–1945 (*Business Screen 7*: 19, April 1946).

The use of 16-mm film for professional motion pictures appeared to be growing. Several well-known producing companies in Hollywood announced their plans for releasing feature pictures on 16-mm film for showing in the smaller towns abroad. One theater in Hollywood, California, and one in Keansburg, New Jersey, set up programs for showing 16-mm pictures (*Mot. Pict. Herald 162*: 16, March 23, 1946). Industrial applications of 16-mm movies were expanding

Applied and Scientific Photography. Motion pictures of the plays during the first half of the conference football games of the University of Southern California were to be shown to the squad between halves of each game. A portable, automatic film-processing machine like those developed for army use in the field permitted the film to be processed ready for projection in 10 minutes (*Home Movies 13*: 618, October 1946). An indication of the important role that photography plays in modern industry was shown by the report of its use in the design and manufacture of a new four-man plane, the *Navion*. Five hundred negatives and 25,000 prints were made for the initial experimental production stage, phototemplates were used for all pattern parts, all stages of construction were recorded by straight photography as well as by special cameras such as photomicrographs and high speed motion pictures and finally, during test flights, movies and stills were made on panchromatic and on color films (*U.S. Camera 9*: 25, July 1946).

Schoenfelder reported that Vectographs (third-dimensional photographs) were used by the U.S. Army Quartermaster Corps as a means of evaluating the quality characteristics of textiles. It was found possible to use the Vectographs in place of cloth samples to show defects in the cloth (*Industrial Standardization 17*: 255, October 1946). The distribution of the radiant heat in pipes installed in the floors and ceilings of rooms was shown clearly by photographing the totally darkened room on infrared-sensitive film (*Life 20*: 77, January 21, 1946).

Photography was reported as serving a very useful purpose in the occupational therapy program at the Walter Reed General Hospital where both ambulatory and non-ambulatory patients were able to use it. For the latter group, a traveling studio, 4 by 6 feet in size, was equipped for all phases of photography, including taking, processing, printing, and exhibiting (*Popular Photog. 18*: 57, March 1946). To help its amputees to learn to walk with artificial legs, the U.S. Army arranged to have repetitive-flash pictures taken of the movements of natural and of artificial legs. Over 800 such studies were made by Mili who found that differences were most clearly shown when his subjects carried tiny electric-light bulbs on their hip, knee, and ankle which produced light-traces of the leg movements (*Life 21*: 91, July 1, 1946).

Edgerton presented data on the fundamental optical and electrical characteristics of electrical flashtubes. Such light sources have been found in recent years to be especially useful for photography and for light measurements (*J. Opt. Soc. Amer. 36*: 390, July 1946). Flashtubes were used by Edgerton and coworkers to study the movements of "flying fish" in the Pacific off Catalina Island. The resulting photographs taken at 1/10,000 second revealed that the fish do not fly but rather glide somewhat in the same way as the "flying squirrel" (*Travel and Camera 1*: 73, August, 1946).

The contrast of microscopic photographic images was increased by depositing obliquely a thin metallic film on the microscope preparation (*J. Applied Physics 17*: 23, January 1946). Improvement of resolution in electron diffraction cameras was discussed by Hillier and Baker (ibid *17*: 12, January 1946).

The roles of detonation waves and autoignition in spark-ignition engine knock were discussed by Miller who showed pictures made at rates of 40,000 and 200,000 per second (*Soc. of Automotive Eng. Preprint*-1946; also *New York Times*, October 15, 1946, Sect. C, p. 29) Shadows of shock waves in water were photographed by McMillan and Harvey by means of a point-spark of less than 0.1 microsecond. Striations frequently appeared in the shadowgrams when the waves were reflected (*J. Applied Physics 17*: 541, July 1946).

Specifications for aerial photographs used in forestry surveys were published by Spurr and Brown, who reported that infrared film used with a Wratten No. 12 (minus blue) filter gave the best results (*Photogrammetric Engineering 12*: 131, June 1946).

Physical Measurement and Standardization. A detailed classification of the various types of construction used in photographic lenses was published by Kingslake. The classification is based on the number of components in the lens and a simple drawing is included of each objective with an accompanying reference (*J. Opt. Soc. Amer. 36*: 251, May 1946). Daily described a method for the calibration of the effective f/stop value of a camera lens in terms of the light transmitted by the lens. The lens is centered over the open port of an integrating sphere and the light output from the sphere is measured. A calibration curve is then obtained for the equipment wherein metal plates with holes of known diameters are placed over the

opening of the sphere in place of the lens. The effective aperture is defined as the size of opening which will pass the same total amount of light as the lens under calibration (*J. Soc. Mot. Pict.* Eng. 46: 343, May 1946).

Improvement of photographic color rendering by correction filters was calculated by van Kreveld by means of the addition law. He showed that each filter can be characterized by three "improvement factors," which are nearly independent of the color sensitivity of the emulsion (*J. Opt. Soc. Amer. 36*: 412, July 1946).

Jones and Higgins reported further progress in their investigation of photographic granularity and graininess. In their second paper they discussed the effects of variations in instrumental and analytical techniques. With the photographic materials used, no scanning aperture was found which gave granularity-versus-density functions similar in shape to the graininess-density function Some preliminary data were included on certain visual aspects of the general problem (*J. Opt. Soc. Amer. 36*: 203, April 1946).

Some techniques were described by Goldstein and Bales for the periodic recording of single, fast traces on a cathode-ray tube at rates up to 4,000 per second. Factors affecting the maximum writing speed were discussed and it was shown that speeds as high as 70 cm per microsecond can be obtained without sacrificing deflection sensitivity and using commercially available tubes and films (*Rev. Scientific Instruments 17*: 89, March 1946). Simons published details on a continuous film- or paper-recording camera for use with standard cathode-ray oscilloscopes enabling components up to 5,000 cycles per second to be analyzed (*Electronic Engineering 18*: 10, January 1946).

A review was published by McNair of the development of photographic standards by the Still Photography Committee Z38, the Motion Picture Committee Z22, and the War Committee on Photography and Motion Pictures, Z52, of the American Standards Association. It is shown that a substantial background now exists of standards for those concerned with equipment and practices in these fields (*J. Phot. Soc. Amer. 12*: 283, June 1946). A complete list of twenty standards in the field of motion pictures was printed in April (*J. Soc. Mot. Pict.* Eng. *46*: 284, April 1946) and those approved for photography were published in May (*J. Phot. Soc. Amer. 12*: 207, May 1946). Six newly revised motion pictures standards were approved during the summer and published in September (*J. Soc. Mot. Pict.* Eng. *47*: 258, September 1946). Details were also published of the nine standard test films for checking 16-mm equipment (ibid. *46*: 511, June 1946).

Information was published by Russell on three new American standards related to specification of film speed (Z38.2.1–1946), spectral sensitivity of photographic emulsions (Z38.2.4–1946), and diffuse transmission density (Z38.2.5–1946). It was expected that these standards would assist greatly in clarifying and unifying terminology of these subjects (*J. Phot. Soc. Amer. 12*: 391 September 1946). A standard practice for conversions of weights and measures for photographic use (Z38.-8.2–1945) was published (ibid. *12*: 208, May 1946).

Bingham discussed sensitometric evaluation of reversible color film, a subject on which little had been published heretofore. (*J. Soc. Mot. Pict.* Eng. *46*: 368, May 1946).

Manufacture of Sensitized Materials. Although photographic manufacturers pushed their plants to capacity production, the backlog of consumer needs resulting from the war was so great that dealers seldom received enough photographic materials to accumulate stocks. Toward the end of the year it was encouraging to note an increase in the available supplies of color materials.

The properties of three new 35-mm Ansco color films for professional motion pictures were described by Duerr and Harsh. The films were recommended respectively for camera use, duplicating, and release printing (*J. Soc. Mot. Pict.* Eng. *46*: 357, May 1946). In the field of television, E. I. duPont de Nemours and Company announced a new motion picture film, known as Type 323, for photographing the television monitor tube and White and Boyer described its technical properties (ibid. *47*: 152, August 1946). Another interesting paper in this field was that by Meschter which dealt with television reproduction from negative films (ibid. *47*: 165, August 1946).

The Glenn L. Martin Company, Baltimore, announced an emulsion for coating metal, wood, plastic, and other surfaces on which drawings were to be reproduced. On heating the jelly-like substance to 125° F., it could be applied with a brush or sponge and when dried, was capable of exposure and development in the normal way (*Chem. and Met.* Eng. *53*: 180, February 1946).

A rapid processing, fast-drying paper called Resisto was announced for sale by Eastman Kodak Company. This product had been a war development for rapid processing of maps and charts. The Dassonville Company, who had specialized in a single photo-product, a paper known as Charcoal Black, announced a new warm-tone paper, called Charcoal Ember (*Popular Phot. 19*. 119, December 1946). The making of sepia prints directly from color transparencies on Grant Panchroreversal paper was described by Sisto (*Camera*, Baltimore, *68*: 28, June 1946).

The majority of sensitized photographic materials are packaged in sealed wrappings under a controlled temperature and humidity at the factory. Management of the moisture content after the package is opened has presented problems to users of film materials, especially in tropical climates. In this connection the paper by Kunz and Ives on the use of desiccants with undeveloped film was of interest (*J. Soc. Mot. Pict.* Eng. *46*: 475, June 1946).

Photographic Apparatus. Although many manufacturers of photographic apparatus made a fairly rapid conversion of their plants from war to peacetime products, full-scale production was hampered by a shortage of certain raw materials, especially steel, and strikes held up still further the replenishment of necessary stock piles. Nevertheless a number of cameras, projectors, flash bulbs, etc., were marketed and some of the great back-log of orders was filled. Several firms introduced twin-reflex cameras, which had one lens above another, the upper serving as a view finder. Several of the older models of miniature cameras using 35-mm film appeared again on the market along with a few new cameras of this general type. One of the new ones was a stereoscopic miniature camera called the "Stereo-Realist." It was fitted with synchroflash shutter, a matched pair of f/3.5 coated lenses and a built-in range finder. A twin-lens viewer having a built-in light was used to examine the stereo-transparencies in either black-and-white or color (*Machine Design 18*: 149, March 1946). European progress in stereoscopy was discussed by Berssenbrugge who stated that the German Society of Stereoscopy held regular meetings throughout most of the war years. They used a stereoprojector

designed by Käsemann which had a beam-splitting condenser, two objectives adjustable laterally and vertically, and would accommodate pictures up to 6 by 13-cm. in size (*Amer. Phot. 40*: 28, March 1946).

Various wartime apparatus developments were made available for peacetime use. One of these, the Fairchild K-25 Sequence camera was said to have been used by the Associated Press for rapid consecutive action pictures, 4 by 5-inches in size, exposed at the rate of two per second. Possible combination of this camera with strobo-flash equipment was predicted (*Popular Phot. 19*: 82, July 1946). Besides the well-known Kodatron flash unit, others were in use under such trade names as Electroflash, the Electronic Flash Gun, Flash-Tronic, Amglo. One flash gun known as Magna-flash operated on magnetic power (ibid *19*: 191, December 1946) while another called the Dyna-Flash Synchrogun had a tiny built-in a.c. generator which was wound manually (*Business Week 18*: 76, December 1, 1945). Technical details of the Raytheon CK-1013 cold cathode rectifier tubes which were used in photoflash equipment were published (*Rev. Scientific Instruments 17*: 245, June 1946).

A microcopying camera called the Duplex Recordak permitted simultaneous photography of both sides of checks and documents. The Cooke Orthocamera was designed to produce orthographic and isometric projections of objects. It had a very large lens highly corrected for spherical aberration and was used to photograph objects, of width equal to or less than the diameter of the lens. Podeyn gave details of a new cartographic camera manufactured by the Fairchild Camera and Instrument Corporation. To cover the needs for topographic and planimetric mapping work, lenses of three focal lengths, 5.2-inch, 6-inch, and 8.25-inch, could be used. The design provided for fully automatic operation or manual control (*Photogrammetric* Eng. *12*: 345, September 1946).

An apparatus for the rapid production of photographic records in connection with processes requiring automatic recording or routine inspection was described by Brown, Blackmer, and Kunz (*J. Franklin Institute 242*: 203, September 1946). The instrument was designed to photograph on 16-mm film a transient image on a cathode-ray tube, develop the image, and project it on a screen,—all in the very short time of 15 seconds. Hot solutions (about 140° F.) were used to process the film, a fine grain positive (Eastman Type 5302). A special processing cup restricted the liquids to a small area on the film and spent solutions were removed quickly by suction. Rapid processing equipment will probably have applications in the field of television, documentary reproduction, and industrial processes.

During the war several firms designed a number of types of film processing and printing equipment having novel features which recommend their use for civilian purposes Included in this group was the G-3 Daylight Film Tank, a compact unit for development of 16-mm or 35-mm film; the M-30 Film Dryer, and the M-20 Contact Printer, which used Argon lamps.

As a result of the tremendous expansion in commercial applications of 16-mm film in recent years, a need has arisen for more precision cameras, printers, and projectors. The Mitchell 16-Camera was announced as having the following features: motor drive; two-pin claw pulldown; rack-over focussing; 175-degree adjustable shutter; four-lens turret and detachable magazines of 400-feet capacity (*Amer. Cinemat. 27*: 376, October 1946). Other available precision 16-mm cameras were the Cine Kodak Special, the Maurer Professional, and the Bell and Howell Eyemo. Western Electric marketed a new sound recorder for making any of the standard original or release type sound tracks on either 35-mm or 16-mm film (ibid. *27*: 60, February 1946). Improved or new 16-mm sound projectors available on the American market included: RCA-Victor Model 201; Ampro Sound Premier 10; Sound Kodascope FS-10-N; Filmo-sound; Victor Animatophone; DeVry RS-ND30.

In view of the use of dye image sound tracks on monopack and other multi-layer color films as compared with silver image tracks, a phototube was developed having its maximum response in the blue-green region of the spectrum. Technical data on this tube, known as 1P37, were published by Glover and Moore (*J. Soc. Mot. Pict.* Eng. *46*: 379, May 1946).

To measure the color temperature of various light sources which may be used for photography, a device known as the Harrison Color Temperature Meter was marketed. It contained a revolving disk holding a series of color filters through which the light from the unknown source was examined and the correction filter for use with a specific film indicated (*Minicam Phot. 9*: 82, February 1946).

A complex gunnery trainer was described by Waller which used photography in several ways as an important part of the device. A five-camera unit was used to photograph a target area of such size that when the resulting films were projected with a group of five projectors, the images would fill a spherical screen, 150 degrees in width and 75 degrees in height (*J. Soc. Mot. Pict.* Eng. *47*: 73, July 1946).

To prevent the fungus fouling in the tropics of optical instruments, Vickland recommended the use of metallic foil impregnated with radium sulfate, which gave off alpha radiation (*Ind. Eng. Chem. 38*: 774, August 1946).

The Photographic Process. The popularity continued of packaged chemicals in various sizes to make up different volumes of solution. With the introduction of new color films and papers which could be processed by the user it was generally believed that photographers would prefer to buy ready-mixed chemicals rather than mix their own solution from bulk chemicals. Chemical outfits were supplied by Ansco for development of Ansco Color film and Ansco Printon and Eastman marketed kits for processing Ektachrome film and Dye Transfer materials. Ektachrome processing required 90 minutes and used six tanks. An advantage claimed for their color developer was that it is less likely to cause skin irritation than developers in common use for black-and-white photography. Chemical oxidizer formulas were published for modifying the color balance of Agfa-color images (*Brit. J. Phot. 93*: 137, April 19, 1946) and of Ansco Color transparencies (*Ansconian 10*: 6, March–April 1946).

The age-old idea of combining development and fixation in one solution was introduced commercially as a packaged chemical known as Unidel. Use of a special hardener called Hi-Temp was recommended by the Eastman Kodak Company previous to development, intensification, or reduction. It was claimed that development could be conducted at temperatures as high as 95° F. with an ordinary developer after a short treatment in this hardener.

A preliminary survey of methods of hypersensitizing and latensification was made by Sheppard, Vanselow, and Quirk. In general it was concluded

that the gain in speed was accompanied by increased graininess and lowered resolving power (*J. Franklin Institute 240*: 439, December 1945). Four general methods of increasing film speed were discussed by Miller, Henn and Crabtree. These included: hypersensitizing the emulsion before exposure, intensifying the latent image between exposure and development, the use of high-emulsion-speed developers, and intensification of the negative after regular processing (*J. Phot. Soc. Amer. 12*: 586, November 1946). The chemistry of chromium and aluminum as agents for hardening gelatin was discussed by Baumbach and Gausman (*J. Soc. Mot. Pict. Eng. 47*: 22, July 1946).

Bibliography. Copies of European photographic journals that were able to continue publication during the war were received in the United States during the year and abstracts of the leading articles were published. Little was known, however, of the future continuity of publication of these journals, especially those printed in Germany.

In the United States, publication was started of two new photographic magazines, namely: *Travel and Camera*, published by the U.S. Camera Publishing Corporation, New York; and *Photographic Age*, published by the Trans-World Publishing Company, Inc., New York. The latter journal caters to the business and industrial user of photography.

The more noteworthy books were the following: *This Is Photography*. T. H. Miller and W. Brummitt (Garden City Publishing Co., Garden City, New York). *Okay for Sound*. F. Thrasher (Duell; New York). *The Technique of the Picture Story*. D. D. Mich and E. E. Berman (McGraw-Hill Book Co., New York). *Professional Photography for Profit*. C. Abel (Greenburg, New York). *Photography is a Language*. J. R. Whiting (Ziff-Davis Publishing Co., Chicago). *Mountain Photography*. C. D. Milner (Focal Press, London). *Fotografisk Handbok* (In Swedish) H. Backstrom (Sokforlaget Natur och Kultur, Stockholm, 2 vols., 1942). *Fotografia Astronomica*, J. Galli, (Correo Fotografico Sudamerico, Buenos Aires) *Mr. Lincoln's Camera Man*. R. Meredith (C. Scribner's Sons; New York). *Image Management*, N. Haz (Haz Book Co., Cincinnati). *Photography by Infrared*, W. Clark (Wiley and Son, New York, 2nd Ed.). *Traité 'de photographie, Tome I. Optique*, C. Diserens, (F. Ronge and Company, Lausanne). *Faces of Destiny*. Y. Karsh (Ziff-Davis Publishing Co., Chicago). *The Art of the Motion Picture*. J. Benoit-Levy (Coward-McCann Inc., New York). *Synchronized Flashlight Photography* G. L. Wakefield and N. W. Smith (Fountain Press, London).

Necrology. The passing of two of the internationally great men in photography is noted: Alfred Stieglitz, New York, who was regarded as the dean of American photography (age 82 years); Dr. Josef Maria Eder, Kitzbuhl, Austria, distinguished scientist and historian (age 90 years).

GLENN E. MATTHEWS.

PHYSICS. High-Voltage Machines. An array of new high-voltage machines was begun or completed during 1946. The world's largest cyclotron, 184 inches with magnets weighing 4,000 tons, was put into operation at the University of California under the direction of Dr. Ernest O. Lawrence.

Its construction was financed mainly by a gift of $1,150,000 from the Rockefeller Foundation, which was augmented by funds from the Research Corporation, the John and Mary Markle Foundation and the University of California. Its completion is being forwarded with the assistance of the Manhattan District. During the war its magnets were used for the separation of uranium 235 during atomic bomb research.

In the first experiment, a 200,000,000 electron volt beam of heavy hydrogen atomic hearts was produced. The deuteron beam was used to bombard beryllium and a sharp, intense beam of high energy neutrons resulted from the bombardment.

Engineering work by the University of California radiation crew headed by Prof. Robert L. Thornton and William Brobeck, solved operating difficulties more quickly than expected.

The atomic bomb element, plutonium, was made in a smaller cyclotron. Many entirely new nuclear reactions are expected to result from work with the new 184-inch cyclotron.

A new kind of high-voltage machine promises to speed along the hearts of atoms at accelerations of several hundred million or even billions of volts, comparable to or exceeding the cosmic rays from outer space.

The linear accelerator, as it is called, is being developed by Prof. Luis W. Alvarez of the University of California.

Using the resonating cavities from second-hand radar sets left over from the war, an accelerator about 40 feet long that will operate at about five million volts direct current was built to accelerate hydrogen atom hearts, protons, useful in all sorts of atomic or nuclear research such as produced the atomic bomb. Eventually the resonating units, each giving a kick to the particles, might be strung out for a mile or more in a straight line. This would give accelerations equivalent to hundreds of millions or even billions of volts if all goes well.

Work on the linear accelerator "atom-smasher" was begun when it appeared that the cyclotron had reached a limit in its voltage at about fifty million. This was before a frequency modulation scheme was used a few months ago with the cyclotron that now makes it possible to operate it at several hundred million volts.

Another atom-smasher, the synchrotron which has unusual qualities of its own, is being developed by Prof. Edwin M. McMillan. It will develop 300 million electron volts.

Powerful radiations from another kind of high-voltage machine, the betatron, can be used for spotting of flaws in heavy steel, giving increased detail and greater speed than ordinary X-ray equipment. The new 20,000,000-electron-volt betatron was completed by Allis-Chalmers for the U.S. Army arsenal, Picatinny, N.J.

For industrial X-ray work, the betatron's radiations can penetrate 20 inches of steel in 20 minutes and detect flaws .002 inches wide and one thirty-second of an inch deep. By making enlargements on radiograph film directly, the machine speeds the time required for X-ray inspection. One competent laboratory technician can operate the betatron, making it practical to X-ray with the betatron every piece of heavy equipment produced instead of the one out of 50 or 100 units as is now done.

The 100,000,000-volt betatron in the General Electric Research Laboratory had its output energy raised to 160,000,000 volts. Devised by W. F. Westendorp of the Laboratory's X-ray section, the method for increasing the voltage is called "DC bias." Briefly, this consists of applying a direct current to the electromagnet as well as an alternating current. This shifts the zero line from the middle of the current wave to its bottom and overcomes a difficulty caused by the fact that the magnetic field is in the wrong direction for guiding the electrons in their orbit while the voltage is passing from zero to its positive maximum.

Nobel Prize. Dr. P. W. Bridgman of Harvard University was awarded the Nobel prize for physics for 1946. The creation and study of enormous pressures, measured in millions of pounds per square inch, won Dr. Bridgman the award. Except for their lower temperatures, they approach conditions prevailing in the deep interior of the earth, and give us some idea of strange states in which ordinary matter may exist at a thousand miles straight down.

"Hot ice," or solid water 163 degrees Fahrenheit above ordinary boiling point, was produced in one of his massive presses, which can build pressure up to as much as six million pounds per square inch. This strange form of water is denser than ordinary ice, and will sink in water. In another of his experiments, Dr. Bridgman showed it to be highly unlikely that diamond can be formed from carbon by pressure alone.

V-2 Rocket Research. Firing a series of captured German V-2 rockets upward from White Sands, New Mexico, a variety of experiments was made in the upper atmosphere to a maximum altitude of 104 miles, achieved July 10.

Radiations from the sun, never observed before, were photographed. Much may be learned about the sun, the earth's primary source of energy, because of photographs taken of the sun's spectrum by a camera carried high into the air by the V-2 rocket fired on October 10. About 40 of these spectrograms were made at increasing altitudes up to 65 miles above the surface of the earth.

The new lines in the sun's spectrum are being identified and their intensities calculated. Scientists estimate that a full year will be needed actually to analyze the data. The spectrograph, used to extend the sun's spectrum, was mounted on a rocket fired at the Army's White Sands Proving Grounds in New Mexico. The Naval Research Laboratory and Army Ordnance Department at White Sands worked together in conducting the experiments. As the rocket rose, the spectrograph operated continuously, producing a series of photographs at various altitudes up to 65 miles. Rotation of the rocket turned the spectrograph away from the sun above that height, so spectrograms could not be made.

The sunlight that reaches the earth is filtered by the ozone in the atmosphere, most of which is concentrated near the earth. Only a small proportion of the shorter wavelengths, those lying on the X-ray side of the visible spectrum, ever reaches the ground surface.

Cosmic rays were counted 40 miles upward at approximately 20 times the rate found on the earth's surface on June 28.

From between altitudes of 200,000 feet and 350,000 feet, multi-channel radio equipment showed the high radiation. While scientists estimated that about 70 percent of the cosmic rays reaching the ground are "hard count" rays that can penetrate six inches of lead, "practically all" the cosmic rays above 40 miles were described as "hard count."

Only 41 seconds of data were gathered by the rocket, the scientists reported, with radio interference blacking out most of the 353-second flight. Data from Geiger counters in the rocket were relayed to ground observers by the radio equipment and were received only for intervals after the rocket had reached 40 miles high and before it began to fall to earth.

Record-breaking high-altitude observations obtained on July 30, by Johns Hopkins University Applied Physics Laboratory apparatus in a V-2 showed that cosmic ray showers were 300 times more numerous in the upper atmosphere than at the ground level. The peak concentration of the mesotron particles generated by the cosmic rays was at 100,000 feet (19 miles).

Electron Microscope. The useful magnifying power of the electron microscope was increased from 100,000 diameters to more than 200,000 diameters by an improved magnetic lens developed by Dr. James Hillier, aided by Perry C. Smith, at the RCA laboratories.

The magnetic lenses that focus the electron beams were improved to such an extent that it is now possible to distinguish particles separated by as short a distance as 13 Angstrom units, or about 50 billionths of an inch. This means roughly that 50,000 distinct particles could be recognized in a distance equal to the width of a hair. Numerous technical problems still await solution before such high resolving power will be available generally.

Structural details of large molecules and the action of drugs on bacteria will be among the things that will become visible Actual visual pictures of molecular structure will open vast new fields in organic chemistry. New knowledge of the finer structure of viruses and living cells would aid the fight against unconquered diseases, such as infantile paralysis and cancer.

Infra-Red Receivers. Lifting of war secrecy allowed announcement of the use of infra-red devices in various ways during the war, particularly the sniperscope and snooperscope with which a marksman could see his human target by means of reflected heat waves. The snooperscope and sniperscope are identical in principle. The first is a complete instrument held in front of the user by one hand. The other is in two pieces that are attached to a carbine. Both have an infra-red lamp that sends out an invisible beam of what some call "black" light. Both have receivers that pick up returned light from the object observed and convert it from invisible light to a visible image. The object appears greenish in hue, but is plainly outlined.

The sniperscope, attachable to the carbine, has one part under the barrel and one over. The under part is the tube containing an infra-red lamp. The face of the tube is painted black so that no visible light can escape. The upper mounting is a special telescope, the receiver for the reflected rays. Both are powered from a supply unit carried on the user's back which contains a six-volt battery and a vibrator.

The transformation inside the telescope receiver that receives the reflected invisible rays and makes a visible image is brought about by the use of electrons inside the tube of the instrument. The reflected infra-red rays picked up on the objective lens are focused on an image tube. When they strike this image tube, electrons are released in direct proportion to the intensity of the rays.

As all electrons possess a negative electric charge, the released electrons are attracted to a positive plate. They are accelerated as they pass through the tube to a fluorescent screen. They bombard the screen and produce a visible image corresponding to the invisible infra-red image on the front screen. The power for action is from the vibrator.

The usual snooperscope is carried by hand in front of the user, but there is another kind. In this the device to shoot out the infra-red beam is mounted on the front of a jeep or tank and the driver is equipped with headgear, a so-called infra-red-sensitive helmet, with the receiving telescope attached to its visor. The infra-red lamp used in the snooperscope consumes five amperes at six volts. The receiving tube requires 4,500 volts,

which is supplied by the vibrator in the power supply unit.

Nazis, as well as Allies, had an infra-red night-seeing instrument called a "heat-eye tube." It was a mass-produced cathode tube powered by a midget generator. With it the Germans used a searchlight with the lens painted out to block the emission of any visible light. In the receiving heat-eye tube, the reflected heat-image fell on a selenium film and dislodged electrons were drawn magnetically through a vacuum tube and focused directly on a fluorescent view-piece. American scientists, however, are working out improved snooperscopes, and also better methods of using infra-red rays in telephonic communication.

A super-sensitive, super-conductive bolometer, developed at Johns Hopkins, was used in sending heat signals over telephone wires. A bolometer is a delicate heat detecting or measuring instrument. This bolometer, a delicate infra-red "eye," contains metal strips whose electrical conductivity is altered by heat waves falling on them. When hit by a heat ray that warms it only one millionth of a degree, it gives a clear electrical signal. It can register the heat from a living person 500 yards away, and when attached to a scanning device, a television-type viewing screen, can produce a rough picture of any warm object.

In this bolometer, columbium nitride is used for its sensitive receiving surface. This rare-metal nitrogen salt is cooled by the use of liquid hydrogen to 432 degrees below zero Fahrenheit, at which temperature its electrical resistance is exceedingly low. For this reason, it is superconductive.

"Sofar." An underwater sound system developed by the Navy in cooperation with Woods Hole, Massachusetts, Oceanographic Institution makes it possible to locate air and ship survivors far at sea. The system, called SOFAR, utilizes a TNT charge dropped underwater by the survivor and timed to explode at a depth of 3,000 to 4,000 feet, which sets up underwater sound waves that are picked up by hydrophones at shore stations. Survivors can be located within a square mile of sea as far as 2,000 miles from shore.

To determine the location of the survivor the underwater sound waves must be picked up by three widely separated shore stations, using hydrophones at the same depth. By comparing the times when the signal is received and then referring the differences to special charts, station operators are able to plot the position of the explosion within a few minutes after the most distant station receives it.

The new system's name, SOFAR, has no relation to the great distance through which it can be used, but comes from the initial letters of the phrase "Sound Fixing and Ranging." SOFAR depends upon an underwater sound zone, the existence of which was confirmed as a by-product of wartime submarine detection studies carried on for the Navy by Dr. Maurice Ewing while director of research in physics for Woods Hole Oceanographic Institution.

As the result of this "speaking-tube" effect, sound travels amazingly far in the depth zone between 2,000 and 6,000 feet. During tests conducted in the Bahamas, sound within the zone was heard with useful intensity a distance of 3,100 miles. No other man-made sound has ever been heard more than a small fraction of this distance. However, at a depth of 600 feet the TNT bomb explosion could be heard for distances of only 100 to 300 miles. Although the sound lasts less than a second at the point of explosion, it is heard for 24 seconds 2,000 miles away. The signal at the receiving hydrophones is likened to a kettledrum building up to a sharp, grand finale. The sharp concluding sound makes possible time measurements within one-tenth of a second.

Artificial Snow. Man-made snow was created for the first time in a laboratory. Using dry-ice fragments against a cloud of supercooled droplets in a cold chamber, Vincent J. Schaefer of General Electric found that the droplets formed ice crystals that fell like snow.

Natural clouds were bombarded with the solid carbon dioxide from an airplane to form the crystals and cleared away clouds. Such a process might be used in the future to clear dangerous supercooled clouds over airfields. Supercooled clouds were formed by introducing moist air into a small commercial freezing unit with the temperature of the resulting cloud about minus 15 degrees Centigrade.

A piece of dry-ice hung in the cooled cloud, converted the cloud into ice crystals in 10 seconds. The crystals increased in size when more moisture was added. The crystals were similar to those of "diamond dust," the small natural crystals found on cold mornings.

Visual Sound Pattern. A sound spectrograph translates any sound into a visual pattern. With a little training, deaf persons can learn to read the patterns and literally see what the other party has to say. Drs. W. Koenig, H. K. Dunn, and L. Y. Lacy of the Bell Telephone Laboratories are inventors of the sound spectrograph. The new instrument would be used first for the rapid and accurate analysis of sound. It is a wave analyzer that produces a permanent visual record of the sound's energy distribution in both frequency and time.

Ocean Blue. Why the ocean is blue was found in a research attempt to use light rays in anti-submarine warfare during the war. There exist in every cubic inch of clear ocean water about a million and a half dust-like particles, each about one fifty-thousandth of an inch in diameter. These particles reflect sunlight back to the ocean surface. But the light that gets back to the surface has been filtered; water absorbs the red and yellow colors of light, leaving greens, blues and violets, the combination of which is the indigo blue common to deep ocean water.

Previously the scientific explanation for this color had been attributed to the scattering by molecules of water, just as the blue of the sky is explained by scattering due to air molecules. Less scientific explanations held that the ocean's color was a reflection of the blue sky.

Dr. F. A. Jenkins, professor of physics at the University of California, and Dr I. S. Bowen, now director of the Mount Wilson Observatory, conducted the research in 1941 at the U.S. Navy Electronics Laboratory in San Diego, using some of the facilities of the University of California's Scripps Institution of Oceanography.

The tiny particles played a major role in blocking efforts to devise anti-submarine devices using light. The billions of particles suspended in the ocean, intercepting light as it passes through water, set a limit of penetration of a ray of light at a maximum of 580 feet. This limitation eliminated hopes of silhouetting submarines by dropping airplane flares below them, since it was impractical below about 200 feet. Scattering of light by the particles also prevented bouncing light rays off submarines, similar to the use of radio waves in radar. The same limitation was found in attempts to devise an optical proximity fuze for depth

charges by installing a light projector in the nose of the projectile.

Drs. Jenkins and Bowen discovered and counted the tiny particles with an ultra-microscope, which makes it possible to see objects smaller than light waves. Light is scattered by the particles, bringing them into visibility.

Color Television. Color television was accomplished by an all-electronic means, a complete departure from television in mechanical color which has been shown in various forms during the past few years.

A color-slide television camera, developed by the Radio Corporation of America, produces signals from 35-millimeter Kodachrome slides. Transmission of the picture on the slide is achieved in natural colors when a light beam from a kinescope is focused through the slide and separated into component colors by a system of mirrors and photoelectric cells.

Each of the three transmitted images, red, blue and green, is of the same number of lines, 525; also the same horizontal scanning rate and the same picture repetition rate of 30 pictures a second as in present commercial television broadcasting.

The receiving set has three kinescopes, which separately receive the signals representing the three colors. From them the three color images are optically projected into a bright composite picture which appears on a 15-by-20-inch screen in natural color.

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WATSON DAVIS.

PITCAIRN ISLAND. An island in the South Pacific, approximately midway between South America and Australia. Area: 2 square miles. Population (June 30, 1943): 177. The island was originally settled in 1790 by mutineers from H.M.S. *Bounty* and native men and women from Tahiti. In 1902 the islands of Ducie, Henderson, and Oeno were annexed by Great Britain and are now included in the district of Pitcairn. The agricultural products are yams, taro, maize, sweet potatoes, bananas, pumpkins, oranges, melons, pineapples, arrowroot, sugar, and coffee. The Government is administered by an annually elected council of 5 members headed by a Chief Magistrate subject to the control of the British High Commissioner for the Western Pacific. Chief Magistrate: Parkin Christian.

PLANT INDUSTRY, SOILS, AND AGRICULTURAL ENGINEERING, Bureau of. A Bureau of the U.S. Department of Agriculture, created as the Bureau of Plant Industry in 1902. Activities include investigations of plant production and improvements of soils in which they are grown and the engineering problems concerned with farming. Headquarters: Plant Industry Station, Beltsville, Md. Chief: Robert M. Salter.

PLASTICS. Progress in the plastics industries in 1946 was more a matter of development than of discovery. As pent-up demand for plastic products made itself felt, the molders, laminators and fabricators turned all efforts towards faster output while material suppliers strained to meet their requirements in resins and compounds. Research was therefore concentrated on peacetime applications of warborn techniques, on broader uses for those few materials in good supply, and on speeding up production cycles. The review of the plastics industry for 1946 and forecast for 1947 appearing in the January, 1947 number of *Modern Plastics* magazine shows this effect of industrial economics on plastics. Some of the highlights are presented here

Only one new resin, polytetrafluoroethylene, marketed under the trade name of Teflon, was introduced during the year. This material is inert to all types of chemicals except molten alkali metals. It does not have a true melting point but does undergo a solid phase change at 620° F. with a corresponding sharp drop in strength. Because of this high softening point it can be shaped only by special techniques. Suggested applications include coaxial cable spacers, valve packings, gaskets, and plug cocks and tubing for chemical plant equipment.

The 1945 newcomer, cellulose propionate, a thermoplastic, underwent test use in products under the name of Forticel, and promised to develop a worthwhile market. The silicone polymers were brought closer to application in electrical insulation, protective coatings, laminates, radio uses and rubberlike products. Experiments to improve the handling and curing characteristics of the polyester or low-pressure, low-heat, thermosetting resins and to secure the best strength qualities in products made from them were many.

Improvements were made in the structure of polyethylene films for packaging. Modification of the properties of polystyrene for injection molding and coating involved some research. Advances in vinyl resin technology were concerned with compounding and fabrication of sheeting, the use of latex-type dispersions in water for coating fabrics and papers and copolymerization of 95 parts ethyl acrylate with 5 parts chloroethyl vinyl ether to make a vulcanizable elastomer possessing superior resistance to oils and heat.

Low-pressure phenolic laminating resins came

out of pilot plant stage to undergo tests in products. Cellular, foamed, or expanded plastics of several kinds, but particularly cellular cellulose acetate, were given further refinement from the standpoint of application.

Some research was devoted to plastics, notably vinyl acetate, in paints and lacquers. Work proceeded in the adhesive field on alkyd resins, on vinyls and the resorcinols. Most of the effort of material suppliers' laboratories went towards the improvement of existing materials, towards more formulations of them to increase their range of use, and towards better standards and tests. The literature of the industry reflects the amount of this work in 1946 in almost twice as many references as there were in 1945.

If dramatic new developments in materials were few, the lack was more than made up for by tremendously broadened applications of plastics and by a constant stream of new methods of using them, either by themselves or in combination with wood, paper, fabric, glass, fiber, and other substances.

In spite of a woeful shortage of plasticizers, witnessed by the fact that vinyl production rose from 122,000,000 lb. in 1945 to 145,000,000 lb. in 1946 while plasticizer production dropped from 48,000,000 lb. to 45,000,000 lb. (and vinyls require from 30 to 40 percent plasticizer for most applications), the vinyls reached the consumer in a magnificent variety of products.

In flexible formulations, printed or tinted and either sewn or electronically heat-sealed, the vinyls appeared as shower curtains, drapes, table cloths and covers, refrigerator bowl covers, rainwear, lamp shade protectors, and other things. A new printing method involved the casting of a design into a film. The design is printed with vinyl-base inks on a melamine-surfaced carrier sheet of kraft paper; the resin is cast on top of the printing, run through a tunnel in which solvents are removed, cooled to form a film and when the film is wound off the carrier the printing is part of it, leaving the kraft sheet clear for further use. Roll printing of vinyl is standard today and even that has been improved during the past year through chemistry.

The electronic heat-sealing or sewing, first used during the war in the manufacture of salt water stills, produces a fusing of material that makes for greatest strength at the seam Both bar-type sealers and wheel type are available. Their use in making pillows, garment bags, rainwear and other air-tight pieces is growing

Rigid vinyl sheeting, generally transparent, is now widely used in drawn and fabricated packaging. Here it competes with acetate, where it offers greater dimensional stability in the presence of moisture. It is considerably more expensive.

Both supported (fabric backed) and unsupported vinyl are used in furniture coverings. Handled like leather they are available in delicate colors, can withstand stains and abrasion readily, and may be cleaned with a damp cloth. Vinylidene chloride, under the trade name of Saran, is extruded in monofilaments and woven into fabric of many colors for open automobile unholstery, for theater seating and transportation seating. It is also made into sag-proof, weatherproof window screening which is available in various colors.

The vinyls, both vinyl chloracetate and vinyl butyral, are used as coatings for fabrics, to make them wear- and stain-resistant. Outdoor furniture made with fabric so treated came on the market in 1946. Vinyls are applied to paper, for use as wall coverings. Vinyl floor tile permits of lighter and brighter coloring than asphalt tile, is grease-and-scuff proof, and is easily cleaned.

Vinyl resin production, resulting in hundreds of kinds of products made from seven or more compounds, and not including plasticizer, has risen from 1,200,000 lb. in 1939 to 145,000,000 lb. in 1946. It may reach 235,000,000 lb. in 1947.

The phenolics, at the war's end, went straight back into radio cabinets, iron handles, and other compression-molded articles in great demand, as well as into more varnishes for high pressure laminators. New electronic pre-heating devices, using either preformed "pills" or powder, speeded up molding cycles by partially curing the material before it went into the press.

It was in other directions, though, that phenolics showed the most advance in 1946. First, there were the low-pressure phenolic resins mentioned above; then there were the phenolic-impregnated papers for use in surfacing plywood and for making all-paper printed laminates These new varnishes are practically transparent, they cure at low pressures and temperatures; they give to wood or paper a highly resistant surface.

Despite the increased production rate on phenolic molding compounds from 10,000,000 lb. monthly during the war to 14,640,000 lb. in August, 1946, no molder got enough in the past year. Demands for phenolics for housings, handles, radios, and a host of other products, coupled with faster molding methods, raised the need for this material. Strikes in the coal fields, cutting off coke, the source of benzol, cresol, and phenol, so important in phenol-formaldehyde manufacture, limited the supply. Phenolic molding compound production in 1946 was 140,000,000 lb. as compared with 65,000,000 lb in 1939. It is expected to reach 170,000,000 lb in 1947.

Most sensational increase in production for any plastic during 1946 was polystyrene. From 750,000 lb. in 1939 it has reached 55,000,000 lb. during 1946 and in 1947, if all plant expansions go through, it should amount to 150,000,000 lb. or more. As an injection-molding material it enjoys good dimensional stability, good color qualities, low specific gravity, and low price. Some problems in de-gating molded pieces and in mold design for the resin have been overcome in the past year. In a variety of formulations it will appear in an increasing number of small molded pieces, in extruded panels for fluorescent lighting fixtures, and, as polystyrene foam, as core material for various uses.

A new development is the use of polystyrene sheet in formed packages. While not as transparent as vinyl rigid sheet or as cellulose acetate, it forms well and has a utilitarian market.

The cellulosics makers increased 1946 production beyond their hopes and in 1947 except to produce 131,000,000 lb. Cotton linters at high prices and shortages of dyes, pigments, and plasticizers were bothersome, although reworked scrap helped out the total supply situation a little

Cellulose acetate continues to be a favored molding material, due to good strength qualities and ease of handling But acetate sheet is moving up rapidly as an outlet. Formed and drawn into packages, laminated in heavier grades for lampshade material, it is expected to reach 26,000,000 lb. in volume in 1947. New equipment for automatically forming sheet into boxes will help.

Ethyl cellulose, the material used in the nose of the proximity fuze, is beginning to appear in peacetime products. Two or three small radio cabinets injection-molded from ethyl cellulose will be on the market shortly.

Hercules Powder Company has recently introduced a cellulose-derivative low-pressure thermoplastic laminating resin, and pieces such as small luggage are being made from it. Cloth is the filler and the material is declared to be formable on inexpensive dies in addition to being tough and light.

In the use of all cellulosic molding compounds, polystyrene, molding acrylic, molding nylon, etc., the improvement in injection-molding machines and extruding equipment—as well as the increase in their capacities—is worth noting. Over half of the injection molders added presses during 1946, bringing the present total up to 3,275 machines as compared with about 1,000 in 1941. Most of the new machines average 8-oz. size, while a few are much larger. Extrusion presses number 1,150 compared with 650 in 1944. All are bigger and faster.

As with the phenolics, the ureas and melamines are broadening their market. First, larger pieces are being molded; second, these resins are going into textile-treating and into adhesives. Melamine, rag- or alpha-cellulose filled, tableware for restaurants is undergoing use tests and promises to offer good sales volume. Melamine is standard varnish for top sheet of decorative laminates which have a dark phenolic core. It is going into buttons, into industrial applications such as melamine-glass fibre electrical panel board, and into heat-resistant uses. Urea continues to be used in small radio cabinets, lighting fixtures, and similar applications and new formulations have improved qualities. They are much less brittle.

Polyethylene has progressed from the application standpoint. Tumblers, infants' toys, and other small items are being molded. But most attention is being paid to packaging, where resistance to cold temperatures and moisture is important.

The acrylics, for a few months after the war, suffered from bad fabrication (generally of scrap materials) by people who knew neither materials nor design. That situation has righted itself and new laminating, engraving and die-cutting methods are causing a host of new applications to appear. Injection-molded acrylics are going into brushbacks, combs, cutlery handles and costume jewelry. Fabricated material is being used for its light piping qualities in displays, packages and lighting devices. A new formulation of the cast material is boilable and is used in surgeons' appliances.

Research activity on applications of the acryloid resins is being kept very quiet, but these are being used to some extent as tarnish-proof coatings for silverware, and for specialized impregnations. They are also combined with other resins for various special purposes.

In the low-pressure molding and laminating field, peacetime adaptations of techniques used during the war were seen in increasing number in 1946. Glass mat, impregnated with polyester resin was produced in flat lamination to be made up into lamp shades. The same combination, molded, appeared in some luggage, in industrial devices, and in the form of a street lamp globe which could withstand the impact of stones and air rifle pellets yet has good light refraction properties. Large pieces were low-pressure molded from fabrics plus either polyester resin or low-pressure phenolics Specialty boats began to appear; but costs were a factor limiting volume. For short runs, where cost of steel dies would be impossibly high, the technique was adapted to trailer fenders. The use of the rubber blanket and autoclave seemed to be on the way out, reasons being high cost of labor in the operation, short life of rubber blankets or bags, and long cycle. For such large pieces as were formerly made in autoclaves, newer polyester resins curing under lower pressure and temperatures (one curable in sunlight) were commanding attention.

Deep drawn laminates were made from knit fabric and polyester resin on compression-type presses in steel or cast-alloy male and female dies. Close tolerances and long and fast runs were the reasons why these metal dies were used. The products resulting were ice buckets, hulls for model sailing yachts, and a few housings.

Nylon has been going into molding plants in increasing quantities. Many of the applications are industrial, such as valve seats. Unbreakable and boilable tumblers in color and childrens' feeding sets were consumer products which reflected the high qualities of Nylon.

Most rumorworthy element in the whole plastics field—outside of material shortages—was the continuous contact laminate. These laminates are made by feeding cloth, glass fabric, or paper, or combinations of them from rolls through a dip tank where they receive the polyester resin The ply, passing through squeeze rolls, is picked up between a top and bottom sheet of cellophane wider than the laminate assembly. A textile tenter frame grasps the cellophane at the sides and travels the laminate through a curing tunnel either in hot air or under infra-red lamps. The cellophane acts as the pressure element in producing the laminate, which comes out of the tunnel at rates up to 15 feet per minute. Little labor is involved.

Those concerned with this process claim that it will do for plastics what the rolling of sheet steel did for the metal industry. The laminates may be made flexible or stiff; they can be made flame resistant; they are inert to most ordinary household acids; they weigh about half as much as aluminum; they have reasonably good abrasion resistance.

At the year's end, no consumer goods had yet been produced from these continuous laminates, but they are expected to compete in the wall covering field, in the table-top field, in post-formed applications too numerous to mention. They are fairly expensive at present and two possibilities for economy are declared to be the coating of fabric or paper with polyester (as against the present complete impregnation) and the development of paper filled post-formable contact laminates

Applications for both high- and low-pressure sheet laminates were dependent to some extent on the core material situation which was not good. Plywood, as a core for table tops and wall panels lagged far behind demand, even though 1946 softwood plywood total reached 1,500,000,000 square feet.

Howard Smith Paper Mills Limited in Canada produced a melamine-surfaced laminate with a phenolic and lignin base; thick pieces for table tops and thin ones for wall panels. Honeycomb, developed by Glenn L. Martin Company and U.S. Plywood Company, was still in short supply and sold at around a dollar a pound for ¾ in. thickness. A cheaper method of making honeycomb was under development by Virginia Lincoln Co. This process amounted to the making of a glued paper assembly, pulling it open like a Christmas bell, impregnating it with resin and curing it and then slicing it into panels. Again, the material is not reaching the market in any quantities, although its possibilities in the construction industry are many.

Textile-treating resins, designed to make wool unshrinkable and moth-proof, to give fabrics a permanent starch-like crispness and to prevent wrinkling were brought into use in quantity during

the year. While amounts used per garment are very small, the total volume possibilities are tremendous.

Every major material supplier has plans for expansion in 1947 and many new plants are going up. Production of all synthetic resins and cellulosic plastics materials rose from 247,000,000 lb. in 1939 to 1,200,000,000 lb. in 1946. There is still a shortage due to the tremendous demands being made upon the industry. It is expected that at least 1,600,000,000 lb. of plastic materials will be produced in 1947. This production, it is hoped, will bring supply closer to demand.

A development of increasing interest is the attention being given in the plastics industries to merchandising and informative labelling. While this interest is very slight to date, the fact that four of the big material suppliers are aggressively merchandising their trade names through the processors to the consumer and the fact that plastics molders and fabricators are developing more proprietary items under their own control will have some bearing on this phase of plastics in the next few years.

CHARLES A. BRESKIN.

POLAND. A central European republic, established Nov. 9, 1918. It was invaded by Germany Sept. 1, 1939, partitioned between Germany and the U.S.S.R. by the treaty of Sept. 28, 1939, and completely occupied by German forces after the outbreak of the Russo-German war on June 22, 1941. The liberation of Poland, begun early in 1944, was completed in the spring of 1945.

Area and Population. The territorial limits of the new Poland have not yet been finally drawn and no precise figures are available on its area and population. A blueprint of Poland's future boundaries was provided by the decisions of the Postdam (Berlin) Conference of July 17–Aug. 2, 1945, which placed under Polish administration all German territories east of the Oder and (Western) Neisse rivers, with the exception of a portion of East Prussia. Previously, it had been agreed at the Crimea (Yalta) Conference that Poland's eastern boundary should run along the Curzon Line. The area of Poland within these provisional new boundaries is 124,642 square miles with a population of between 23 and 24 millions. Population (census of February, 1946), 23,600,000. Capital: Warsaw (population, 448,000).

Government. Political and social conditions in Poland are in flux. A new Constitution has not yet been drawn up. By and large, however, the original Constitution of the Polish Republic of 1921 has been revived and the semi-dictatorial Constitution, introduced by Pilsudski in 1935, has been discarded by the Polish Provisional Government of National Unity set up on June 28, 1945. Pending the general election which this government is pledged to hold at the earliest possible moment, the Home National Council serves as interim parliament. The Council's 7-man presidency, headed by Boleslaw Berut, exercises the prerogatives of the President of the republic, whose position is vacant. Premier, Edward Osubka-Morawski.

Events. Long-suffering Poland found no peace in 1946. An endless succession of incidents, acts of violence, reprisals, and diplomatic protests formed the year's principal events. Against this backdrop of continuous trouble, however, the Polish people toiled doggedly for improved living conditions and a brighter future. Toward the year's end, the prospects for the eventual emergence of a strong and prosperous Poland appeared fairly good, provided that the Poles could overcome their traditional factionalism in 1947, and find the national unity which History has so long denied them.

Verge of Civil War. That the formation of the "Government of National Unity" in June 1945 had failed to put an end to the bitter struggle between the former London Poles and the Moscow-sponsored group became painfully apparent early in the year. While the "legal opposition" offered to the regime by Vice-Premier Stanislaw Mikolajczyk's own party, the Polish Peasant party or P.S.L., hardened from month to month, guerrilla warfare between Government forces and armed anti-Communist bands assumed steadily growing proportions.

Late in January, both British Foreign Secretary, Ernest Bevin, and United States Secretary of State, James F. Byrnes, expressed open concern at the number of political murders being committed in Poland and indicated that, according to official reports received by them, the Polish Security Police appeared to be implicated in some of these murders. The Polish Minister of Public Security, Stanislaw Radkiewicz, rejected these charges as "groundless," and declared in rebuttal that underground terrorists had committed more than 2,000 murders of Government agents, political leaders and Jews. Radkiewicz mentioned in particular the terrorist organizations W.I.N. (Freedom and Independence) and N.S.Z. (National Armed Forces), which he linked directly to the Polish troops-in-exile still stationed in Italy and Great Britain. The Leftist press also charged the Peasant party with secretly abetting the terrorists.

Whatever the truth of these charges and countercharges, one fact stood out: that a regular, small-scale civil war was going on in Poland and was growing in fury as the months went by. At regular intervals, the Polish press published warlike communiques issued by the Ministry of Defense and reporting the liquidation of so many hundred "bandits" in this or that area. The district of Radom and the Polish-Ukrainian border region were frequently named in these communiques. Throughout the year also Polish tribunals were busy sentencing captured terrorists. In March, for instance, nine N.S.Z. men were condemned to death by the Warsaw Military Court; five at Katowice; and three at Koszalin. That the underground warfare took a large toll of Government forces, too, was freely admitted by official sources. By Oct. 15, the total of Polish soldiers, members of the militia, and security police agents slain since the beginning of the year stood at 1,298, while 1,185 civilian supporters of the regime had likewise been killed by the underground.

A Plebiscite, But No Elections. When the Government of National Unity was formed, it promised to hold "free and unfettered" elections at the earliest possible moment; this pledge had been a prerequisite for American and British recognition of the new regime in Warsaw. The Potsdam Agreement of August 2, 1945 again impressed the importance of early and free elections on the new Government. On April 24, 1946, Ambassador Oscar Lange informed the United States Department of State that elections would take place "this year." All these promises notwithstanding, no general election was held in 1946.

The Polish Government's standard excuse for its failure to hold the election in due time was "unsettled political conditions." Actually, the reason that one postponement after another of the date tentatively set for the poll occurred was that Mikolajczyk and his Peasant party refused to join in a "bloc ticket," i.e., a pre-electoral arrangement as-

signing each major party a certain share of the 444 Polish Parliament seats in advance. It was over this issue that the first open break between the P.S L. and the other parties represented in the Government occurred late in February. From that moment on, the P.S.L. and its leader Mikolajczyk were constantly heckled by the Government's press and harrassed by its police. On May 11, Premier Edward Osubka-Morawski made a strong attack on what he called "Fascist groups" active within the Peasant party. In an aggressive retort, Mikolajczyk on June 5 charged the Leftist majority in the Government with trying to destroy the P.S.L through force and secret police action. "The breaking up of our party is to be accomplished through the citizens' militia reserve organization, through armed bands, and through special courts," he declared.

Mikolajczyk also opposed a national referendum set for June 30, which both the Peasant party leader and the Western Powers regarded as a poor substitute for the missing general election. In this plebiscite, the electorate was asked to approve or repudiate the Government's policy on four important issues: (1) abolition of the Senate and establishment of a unicameral Parliament; (2) the already completed agrarian reform, (3) the nationalization of all basic industries and of enterprises employing more than 50 persons, which had been decreed on Jan 4, 1946; and (4) the westward extension of the Polish frontier to the Oder and Neisse rivers.

The bloc of Leftist parties under Communist leadership which held the reins of government urged the voters to endorse the regime by casting affirmative ballots on all questions. The Peasant party was split on the parliamentary issue. While Mikolajczyk and a majority of the party leaders favored retention of a bicameral Parliament, four members of the P S.L 's executive board expressed themselves in favor of abolishing the Senate; they were expelled from the party on June 15. On the other questions of the referendum, the P S.L. also recommended to the electorate to vote in the affirmative.

The results of the plebiscite, made public on July 8, were as follows: abolition of the Senate, 7,844,522 "yes" and 3,686,029 "no"; agrarian reform and nationalization, 8,896,105 "yes," and 2,634,446 "no"; western border, 10,534,679 "yes," and 995,854 "no." Mikolajczyk immediately demanded that the poll be set aside as not valid, because of widespread fraud and forgery of returns alleged by him, but the charges were dismissed by the general commissioner in charge of the balloting.

After studying detailed reports sent by their official representatives in Warsaw, the American and British governments on Aug. 20 protested, in parallel notes to the Polish Government, against alleged "serious irregularities" in tabulating the ballots, and "oppressive acts" against the P.S L. in the campaign preceding the plebiscite. The two notes went on to suggest that all democratic parties be allowed to campaign freely at the forthcoming elections and that ballots be counted in the presence of representatives of all parties. The Polish Government, on Aug. 27, rejected the American-British representations and charged that they constituted "an infringement into Poland's sovereign rights and interference with her internal affairs."

Meanwhile, new pressure had been brought to bear on Mikolajczyk and the P.S.L. to obtain their acceptance of the coalition slate proposed by the Leftist bloc of parties; Mikolajczyk, however, persisted in his refusal. In September, the National Council framed the electoral law which, formally at least, was designed to ensure a secret, democratic vote. On Nov. 12, President Boleslaw Bierut finally signed a decree designating Jan. 19, 1947 as the date for Poland's first general election since the war. The decision had long been held up to permit the Communists and the Socialists, the two principal pillars of the Government, to work out a fair distribution of the parliamentary seats obtained by the four-party coalition sponsoring a single list of candidates at the forthcoming election. Though details of the arrangement were not made public, reports indicated that the Communists and Socialists would each take about 130 seats, and the Peasant party headed by Tadeusz Rek, one of the four men previously expelled from the P.S L., perhaps 97, with the Democratic party getting an unspecified smaller number of seats.

The coalition slate will be challenged only by Mikolajczyk's P.S.L., for which the government bloc "reserved" about fifty-four seats, considerably less than the 25 percent share which had been previously offered the party in return for joining the countrywide single ticket All these pre-election deals, of course, did not impress outside observers as foreboding "free and unfettered elections" in the spirit of the Potsdam Agreement.

While it was generally taken for granted that the Government bloc with its monopolistic control of the press, the radio, and especially of the police, would win the forthcoming election, a strong element of incertitude was introduced by the attitude of the Church. After informal talks in September between President Bierut and Cardinal Hlond, Primate of Poland, had failed to lead to agreement, the latter, in a pastoral letter read from pulpits throughout the country on Oct. 20, in effect called upon the faithful to repudiate the Government bloc and vote for the P.S L. In a direct counter-move, Bierut demanded on Nov 23 that Catholic priests in Poland "stop using their sermons for political purposes," and asserted that "these attacks from the pulpit form one of the greatest barriers to good relations between the Church and the State."

Poland in the Soviet Orbit. Many developments in the course of the year indicated that Poland, under the Government of National Unity, was as solidly anchored in the Soviet sphere of influence as it had been before Mikolajczyk joined the regime. The Warsaw Government engaged, so to speak, in a running diplomatic fight with the Western powers, of which the electoral dispute represented only one phase.

Polish relations with Great Britain, in particular, remained unsatisfactory as the result of a continuous controversy over the fate of the Polish Army-in-exile and related issues.

The long-delayed repatriation of Polish troops in Britain began in February but proceeded very slowly. The large majority of the approximately 200,000 Poles under British military command refused to return home under present conditions, despite formal pledges from Warsaw that they would not be discriminated against. An urgent appeal made by Foreign Secretary Bevin on March 20 ("We are very anxious—extremely anxious—that Polish troops will return to their own country") produced no result. By mid-April, some 180,000 Polish irreconcilables were still left and had to be accommodated somehow. In May the British Government ordered the Polish troops demobilized, but since they were unwilling to return to civilian life they were permitted instead to enlist in a British "Resettlement Corps." The Polish Government immediately protested this move in which it saw

an attempt to incorporate the Poles into the British Army.

The Resettlement Corps was to be concentrated in the United Kingdom and in June the evacuation of the Polish Army in Italy—103,000 officers and men commanded by General Wladyslaw Anders—got under way and was completed by the end of October. General Anders and all Polish officers and men who joined the Resettlement Corps were deprived of their Polish nationality by a decree accusing them of "activities detrimental to the Polish State."

American-Polish relations were disturbed, among many other causes of friction, by the sweeping Polish nationalization decrees which affected American-owned properties estimated at $100,000,000. In some instances, even the compensation due nationals of friendly countries under the law was withheld on the ground that the assets involved actually belonged to German individuals or firms. On Oct. 18 it was learned that the State Department had filed a formal protest against these practices A list of 25 firms earmarked for expropriation without compensation, in which American financial interests were involved, was forwarded to the Polish Nationalization Commission which promised new hearings in November

Both American and British diplomatic and consular officials were involved in a series of incidents in Poland. The most serious of these occurred in November when Mrs. Irena A Dmochowska, an American citizen and employee of the United States Embassy in Warsaw, was convicted of having attempted to assist the flight from Poland of the alleged murderer of a prominent politician; she was sentenced to five years' imprisonment.

While Poland's relations with the Western powers were marked by growing tension, the bonds tying her to the Soviet orbit were further strengthened during the year A number of state visits contributed to this result. In March, Marshal Tito of Yugoslavia visited Warsaw and was given a festive reception; a long-term pact of friendship and mutual assistance between the two countries was signed on this occasion. In May, President Bierut, Premier Osubka-Morawski, and Marshal Michal Rola-Zymierski, commander-in-chief of the Polish Army, made a good-will trip to Moscow. In October, the Premier and the Marshal paid a call on the Ukrainian Government at Kiev, and shortly later Bierut and Rola-Zymierski went to Belgrade to repay Tito's visit All these travels were accompanied by huge demonstrations of mutual friendship and by military parades.

Anti-Semitism. Virtually from the first day of liberation from the Nazis, the handful of Jews whom the Gestapo had spared became again the target of vicious assaults by Polish anti-Semites. Sporadic outbreaks and minor pogroms which had taken place throughout 1945 and the early part of 1946 reached a terrible climax in the Kielce Pogrom of July 4, one of the greatest mass slaughters in Polish history. Aroused by a purposely-planted false rumor about Jewish "ritual murders," a Polish mob stormed the apartments of Jews in the city, killing 41 persons. The Government, which had previously endeavored in vain to halt the rising tide of anti-Semitism in the country, blamed the outrages on "Fascist" elements, and in particular on the N.S.Z. In a quick mass trial of the instigators and perpetrators of the crimes, nine defendants were sentenced to death and executed on July 11.

The Kielce Massacre, coming on top of a long series of individual killings of Jews, caused a new Jewish mass exodus from Poland. Thousands fled westward into occupied Germany, especially the American zone, while other thousands took the "underground railroad" to Palestine, thus adding new complications to a grave international problem. By the end of the year it was estimated that fewer than 70,000 Jews were left in Poland out of the 3,000,000 who lived there before Hitler.

Death of a Nazi. Poland's cruel overlord during the years of Nazi occupation, Arthur Greiser, was brought to trial in June before the Supreme National Tribunal at Posen. He was sentenced to death and was hanged on July 21 before a crowd of 15,000 people jamming Posen's Citadel Square. Another top Nazi war criminal, Ludwig Fischer, former Governor of Warsaw, was scheduled for trial late in December.

Economic Conditions. Although still one of the hungriest and most poverty-stricken countries in Europe, Poland in 1946 made great strides toward economic recovery. Industrial production progressed steadily, while the farming output lagged, especially in the western territories seized from Germany.

The outstanding fact in the economic picture was Poland's emergence as the leading coal producer and exporter in Europe With an annual production of coal estimated at 35,000,000 tons toward the end of 1946, and legitimate hopes of achieving a maximum output of 90,000,000 tons by 1950, Poland was eagerly wooed by the commercial attachés of a dozen European nations, which were coal-starved as a result of Britain's inability to export.

Polish finances were held in suspense for months as a result of political complications. In April, credit arrangements aggregating $90,000,000 were agreed to by the United States, but the funds were held up later by the State Department in connection with the acid diplomatic notes exchanged in the summer. In August, however, the credits were unfrozen, Polish funds in Britain and Canada also were released in the latter part of the year.

Production. The first statistical data released by the Provisional Government give an incomplete but nevertheless interesting picture of Poland's economic recovery. The coal output rose steadily in 1945, from 1,355,621 tons in May to 3,114,297 tons in November. During 1946 the average monthly output was about 3,600,000 tons, with an estimated total production of 46,000,000 tons. In the textile industry, the production of wool and cotton fabrics reached 86,400,000 yards. Estimated textile production for 1946 was 227,900,000 yards. Crops were harvested from 5,948,567 hectares. The production of sugar beets in 1946–47 was estimated at 290,000 tons. Poland's prewar livestock was drastically reduced under the German occupation, with only 25 percent of the cattle and 35 percent of the horses left

Education. A school reform introduced by the Provisional Government provides for free, compulsory education for 12 years, including university courses. Poland in 1946 had 21,421 schools with a teaching staff of 61,200, attended by 2,060,000 pupils. Universities have been re-opened at Warsaw, Cracow, Lublin, Poznan, Lodz and Torun.

JOACHIM JOESTEN.

POLO. The first American game to be blacked out by the clouds of war came galloping back into the national sports picture last year and from midwinter, when the big armories began lighting up, until early October, when the curtain fell on the outdoor season, the mallet swingers played to big and enthusiastic crowds.

Westbury's Meadow Brook Club—cradle of the sport—once again was the scene of polo's classics and the season reached a fitting climax on famed International Field with the revival of the international and U.S. open championships. Mexico's popular Gracida brothers—Gabriel, Guillermo, Alejandro and Jose—proved magnets for the major tourneys and also proved they were quick to learn American style of play, for after losing two straight games in the international series they came back to ride away with honors in the open.

Opposing a 34-goal American four of Mike Phipps, Cecil Smith, Stewart Iglehart, and Peter Perkins, Mexico lost by 10–4, before a crowd of 20,000 and by 11–4 before 21,000 in the international series. Smith, with 11 tallies for the two contests, paced the U.S. riders, whose hard-hitting was just too much for the visitors and the President Manuel Avila Camacho Trophy went to Captain Iglehart's team.

However, the Gracidas, riding as the Herradura four, came back nicely two weeks later and carried off the national open title by defeating Phipps' Los Amigos quartet, 11–9, in the final round as 16,000 looked on.

The All-Argentine Miraflore Club, comprised of Fred Vogelius, Torres Zavaleta, Eduardo Brown, and Oscar Tricerri and aided by a 4-goal handicap, annexed the Monty Waterbury Memorial Cup when they defeated California in a thrilling final, 12–10. Del Carroll, Peter Perkins, George Oliver, and J. A. Wigmore rode for the losers. The Miraflores also won the Herbert Bayard Swope Challenge Cup by topping Bob Lightfoot's Meadow Brook Foxhunters, 9–8.

Highlight of the indoor campaign was the national Spring handicap tourney in which the Ramapo Reds routed a West Point Cavalry four, 15–8, in the final. The indoor intercollegiate championship was restored to the schedule, but only two schools could muster teams, and the title went to Army when it conquered Cornell by 16–5.

THOMAS V. HANEY.

PONAPE. The main island (158° 10′ E. and 6° 45′ N.) in the eastern Carolines of the Japanese Pacific Islands. Total area, 145 square miles. Civil population (1938), about 11,468. There is a lagoon around the island formed by an outer reef. Jokai, a fortified islet, 876 feet high, in the lagoon provides the chief harbor landing. A naval establishment and large commercial docks were built by the Japanese The chief exports are sugar, phosphates, bauxite, alcohol, copra, and dried fish. The island passed under the control of United States armed forces as a result of the Japanese surrender in 1945. On November 6 the United States requested that the island be placed under United Nations trusteeship with the United States as administering authority.

PORTS AND HARBORS. Developments in port and harbor development in the United States during the post-war period have been mainly in maintenance and improvement works, coupled in some cases with the conversion of army and navy shipping facilities to commercial use. The numerous and long-continued strikes have hampered much construction work, as well as ship movements and the handling of normal port operation activities. Improvements affecting navigation, such as the deepening and widening of channels, are in the jurisdiction of the Corps of Engineers, U.S. Army (War Department). Other works are in the hands of local public authorities, railway and ship companies, and private concerns.

The River and Harbor Act of November 7, 1945, authorized $4,614,000 for certain works, and the Act of July 24, 1946, authorized sixty projects estimated to cost $520,395,000, while the Civil Appropriation Act of August 2, 1946, provided $110,125,000 for the War Department's civil work in 1947. But the program for construction in 1947 has been cut to $90,000,000 under the government order curtailing Federal public works not relating directly to the housing problem.

The Port of Boston Authority, which is a new department of the Commonwealth of Massachusetts, plans an ocean terminal costing $7,700,000 at Charlestown, and improvement work at South Boston. The U.S. Army had established an embarkation terminal on Castle Island, South Boston, and this has now reverted to the Port Authority. The Navy also has released piers which had been occupied for war service. The harbor of Philadelphia was the scene of the sinking and collapse of a private shipping pier, caused it was reported, by the loosening of the soil by high tides, thus weakening the hold of the piles.

The Port of New York Authority is building a pier and grain-conveyor gallery at the Brooklyn docks, as the last steps of a grain storage and shipping terminal, the conveyor loading grain directly to ocean-going vessels moored at a pier 1,250 feet long and 150 feet wide. The new pier is 542 feet long. The elevator has a storage capacity of 1,800,000 bushels, or about half the total grain capacity of the port. The Port Authority has already a railroad union freight station and is building two union freight stations for long-distance motor-truck service. The one in New York City is 1,000 x 175 feet, with freight platform accommodating 144 trucks. The other is at Newark, N.J. (within the port area), 1,150 x 200 ft., and will accommodate 160 trucks. The Port Authority is also building a transfer pier for a car-ferry service to Cuba, railway cars being handled to and from the steamers. A costly accident at the port was the burning of the railway and ferry terminal at St. George, on Staten Island, in June.

At Houston, Texas, new wharf and dock facilities, to cost $1,150,000, will be completed in 1947. At Long Beach, Calif., a concrete quay 1,400 feet long has been built for the Army. At San Diego, Calif., the Navy is to build a 2,700-foot quay and four piers 1,050 feet long. A sea-plane basin and a new entrance to the harbor are proposed. A novel project at San Francisco, under consideration by both the Army and Navy, is the Reber plan to shut off two arms of the landlocked bay to form fresh-water lakes accessible by locks. At the Mare Island navy yard a large basin is proposed for the storage of a great number of inactive navy ships of all kinds.

At Seattle, Wash., new wharves and other facilities are to be built in view of the development of Pacific traffic. Tacoma is dredging its harbor and using the material to fill tide-lands. Further north, the U.S. Army is establishing a new harbor at Neah Bay, on the Strait of San Juan de Fuca, with a rock breakwater 8,220 ft. long. Everett, Wash., also proposes improvements as a Puget Sound port.

A welded-steel, floating dry-dock for the Navy, launched sidewise into the Ohio River at Pittsburgh, on August 10, is 448 x 97 ft., with sides 45 ft. high and a lifting capacity of 6,000 tons. Another floating dry-dock, built at the Curtis Bay navy yard, in Maryland, is of new design in having steel walls on timber pontoons forming the floor or base, since wood in such location has a longer life

than steel and is less costly to maintain. It is 300 x 84 feet, with a lifting capacity of 3,000 tons, and is intended for the Coast Guard service. At Memphis, Tenn., a large sheltered harbor is planned for the storage of a number of inactive Army vessels.

Mexico has a program for the improvement of Puerto Mexico (on the Gulf) and Salina Cruz (on the Pacific), and is building a road across the Isthmus of Tehuantepec to connect the two ports. Improvements are planned also for Vera Cruz. Brazil plans a general improvement of its large ports, beginning with Rio de Janeiro and the coffee-exporting port of Santos, although the dock facilities at the latter place are owned by private interests. Projects for new docks at Porto Alegre and Pelotas, both in the province of Rio Grande do Sul, are approved by the national government.

In Australia, a dry-dock at Brisbane, Queensland, put in service after war delays, is 830 x 110 feet, in rock excavation. A new deep-sea port at Robe, proposed by the State of South Australia, is 300 miles from the capital city, Adelaide. At Portland, in Victoria, which is 220 miles from Melbourne and has now only an open roadstead, the state government proposes to establish a complete port and harbor. The large ports of the Union of South Africa are being improved for expected post-war developments. The most modern is said to be the combined naval and commercial port of Durban, where extensive improvements include freight handling equipment and land reclamation along the water front, as at Cape Town.

Port works in Europe are largely in the removal of sunken ships and wreckage, preliminary to reconstruction. The adjacent and formerly rival ports of Danzig and Gdynia suffered greatly from bombing and the sinking of ships in the channels, and also from the subsequent removal of cranes and other machinery. Sweden has completed a new west-coast port at Lysekil, and extensive improvements at Gothenberg are planned by the harbor board, with financial assistance from the government. To aid in rehabilitating the war-battered French port of Havre, which has been undertaken by the U.S. Army, three Canadian dredges were towed across the Atlantic. Similar work has progressed at Dunkerque, Marseilles, St. Nazaire, and Nantes.

A secret port at Prince Rupert, British Columbia, was established by the Canadian government in 1942, but was not revealed until 1946. Still another secret war port was established by the British government in South Wales, on account of the crowding of all ports on the Bristol Channel by war and commercial traffic. At Southampton, the marine and railway terminal of the Southern Railway is to be rebuilt on an elaborate scale for passenger and freight traffic. At Dublin, Eire, a dry-dock for vessels up to 18,000 tons is proposed.

Reconstruction of the port of Manila, accomplished by the U.S. Army in record time, was an immense undertaking, owing to the complete destruction during the war. More than 700 sunken vessels had to be removed and wrecked piers and other structures made available pending permanent reconstruction.

E. E. Russell Tratman.

PORTUGAL. A republic of southwestern Europe. Capital, Lisbon.

Area and Population. The area of continental Portugal is 34,254 square miles, and the area of the Azores and the Madeira Islands is 1,236 square miles, or a total of 35,490 square miles. The population on June 30, 1944 was 8,043,315. Principal cities are Lisbon, with 800,000 inhabitants; Oporto, 262,309; Funchal, 48,493; Setúbal, 35,071; Braga, 29,875; Evora, 21,851; Ponta Delgada, 21,071; Faro, 20,419; Coimbra, 20,216.

Government. Portugal is a corporative state under a constitution adopted in 1933. The organs of government are: a President or Chief of State; a Premier or Chief of Government; a Parliament composed of a corporate Chamber and a National Assembly; a State Council; a Cabinet and the Judiciary. The Chief of State is elected every seven years. Franchise corresponds to literate adult males who pay taxes to the state; to administrative corporations; and to adult females having special secondary school or university degrees. The members of the Corporate Chamber are appointed by local institutions and administrative, moral, cultural, and economic societies. The National Assembly of ninety members is elected for four years by the voters.

In the general elections of 1942, the only candidate was Gen. Antonio Oscar Fragoso de Carmona, who has held office since 1928, and was re-elected for seven years which will expire in 1949. The State Council is formed by the President of the Republic, the President of the Council of Ministers, the Vice President of the National Assembly and Corporate Chamber, the President of the Supreme Court, the Attorney General of the Republic and four other life members. The duties of this council are to advise the President and to convoke or dissolve the National Assembly. The President appoints the Premier who, in turn, elects the Cabinet.

The only legal party is the União Nacional (Party of National Union) which supports the government. The opposition parties refused to participate in the general elections of the National Assembly early in November of 1945, as a sign of protest against the oppressive measures of the Chief of the Government. (See Year Book 1945, p. 467). The Portuguese Government has been a dictatorship since May 28, 1926, and General Fragoso de Carmona is still dean of European dictators, although he is only a figurehead, for political power has always been in the hands of Antonio de Oliveira Salazar, who was appointed Prime Minister after the military coup d'état that placed Carmona in the Presidency. Salazar was an early imitator of Mussolini's tactics, controling the most important portfolios, and acting in accordance with the Catholic Church and with the aristocratic élite of the country. There seems to be very little organized opposition against the regime, and the only signs of dissatisfaction have come from groups of the army or the urban labor organizations. On numerous occasions, the workers, grouped in underground unions, have promoted strikes with political objectives, but they have found little backing. Most of the liberal Portuguese are in exile in Paris or London, and the year of 1946 proved to be a more peaceful year for the dictatorship than the previous one.

Events. On New Year's Day, Salazar made his customary speech, in which he said that for six years Portugal had been able to celebrate the New Year without the preoccupations and anguish of the war, and he carefully pointed out to the victorious Allied Nations the benefit derived from the neutrality of his country. On February 23, there was an important meeting of the State Council, for the purpose of exchanging ideas concerning the new political situation of the world. In the speech delivered by the President of the Council, he explained that the opponents of the Government did

not participate in the elections of November 1945 because their aim was either regression or revolution, but was not to conform to constitutional means. In discussing certain aspects of international life, the speaker was cautious not to antagonize the United Nations and stated that "Portugal was not yet a member of that organization but that the spirit of men was more important to world peace than the words of a charter or its organs." The President of the Council stated that Portugal was still a member of the League of Nations and was willing to go to Geneva the coming April, to vote for the dissolution of the League and recommend the transfer of its property to the UN. He added: "We have always been loyal to the League, and we shall not fail when the time comes in the last act of its existence." This was undoubtedly an illogical act, because Portugal was voting for the liquidation of a world organization in favor of another one to which she did not belong.

The feeling of the government was that the country was being snubbed by the UN, and the Portuguese press resented that the London Conference had appointed the judges for the International Court of Justice, and hinted that the UN was only "a meeting of the victors, including some who only joined at the last moment." They hoped that the organization would be obliged, after its first meetings, to open its doors and enlarge its membership to the neutral countries. The propaganda of Salazar's government was aimed at reminding England and the U.S of the collaboration of his administration with the Allied cause. This propaganda was amusing, because Portugal reframed from sending a petition to the Secretariat for an admission to the UN, stating that it was too early to do so, and that she did not care to create a new international difficulty to the world. During the month of February there was a rapprochement in Brazilian and Portuguese relations, caused by the visit of a Brazilian troop ship, *Duque de Caxias*, to Portugal. And the occasion was also used to stress the "collaborating neutrality of the Portuguese government during the war that Brazil won."

On March 3, Cardinal Spellman arrived in Lisbon for a visit of a few hours, and the government profited from the opportunity to emphasize the significance of the visit, and tried to gain the good will of the American Catholics. In the monthly magazine *Portugal*, published by the Ministry of National Information, the editorial gives a detailed account of the Cardinal's visit, as the most important event of the month in the foreign affairs of the nation, giving preference to this visit, in the distribution of their information, over the visit of the British squadron of the Home Fleet which entered the Tagus River on March 22. On this occasion, the government stated that "during the war England was a belligerent and Portugal neutral, but their aims were identical." The Portuguese press carried once more a long and detailed account of the Anglo-Portuguese alliance as the oldest treaty existing in the world. Major Luis Da Camara, in a speech in the National Assembly delivered on March 22, again hinted about the Portuguese dissatisfaction with its exclusion of the UN. He underlined the great importance of the British Commonwealth of Nations—carefully avoiding the word Empire—as a standard type in political organizations of the world, and compared it with the relations between Brazil and Portugal, in which 70,000,000 Portuguese-speaking people lived a common life on either side of the Atlantic, animated by a true spirit of peace. His purpose was undoubtedly to remind the world that Portugal should be supported by Brazil in its desire to be invited to the United Nations.

In April, the President of the Council made an appeal to the people of Portugal to help in the world food shortage, and promised the British Government that Portugal would contribute to the relief of the European population. That month, the government was greatly interested in the role to be played by the country in connection with the postwar reorganization of the airways in Europe. The airport of Portela was reconditioned and many of the most important companies either received new concessions or were ratified in their former ones. According to Portuguese experts, Lisbon was the air center of the world, as hundreds of people embarked and disembarked daily at Portela, and hundreds of mail bags and bundles were brought in and taken out by plane. This was the result of the foresight of Oliveira Salazar, who had harmonized the interests and objectives of the foreign companies. Among the airlines using the airport as a terminal or transit port are the Pan-American Airways, British South American, British Overseas Airways, Iberia (Spanish), Aero-Portuguesa, A.B. Aero-Transport (Swedish), Sila, Scandinaviska Air Line (Swedish), K.L M. (Dutch), Sabena (Belgian) and Trans-World Airways (United States).

In May, the Portuguese government commemorated the twentieth anniversary of the military coup d'état that established Salazar in power, and that originated in the city of Braga, when a group of officers led by Gomes d'Acosta took the field against the government. The commemoration of this event, known among the followers of Oliveira's government as the "National Revolution" commenced with the visit of the President of the Republic and the President of the Council to Braga, together with the Ministers of Interior, Finance, War and Navy. The occasion was a display of military strength and medieval pomp. This anniversary was also commemorated in Lisbon, and the Undersecretary of Finance summarized world politics explaining that the European crisis was a result of the war of 1914 and of the second World War. He made a survey of the prevalent political ideas at the end of the war, and mentioned that Russia, Spain and Portugal were experimenting with new political systems; but that the government of Portugal was not totalitarian, because the Parliament is entrusted with the fiscalization of all governmental and administrative activities. He also emphasized that the Portuguese constitution was older than the Atlantic Charter and that while the great powers were still dreaming of imperialism, the Portuguese charter desired only cooperation and solidarity among nations. The speaker did not bother to explain how it happens that Portugal still keeps her colonial empire in Asia and has always stressed the greatness of her colonial policy.

In June, the Portuguese government received from the British the air base of Lages, situated in the Azores, which had been ceded to Great Britain for use during the war. She also received from the United States the air base at the island of Santa Maria, also in the Azores, which had been ceded temporarily to this country. The leading editorial articles of the press mentioned the significance of the event and pointed out that "thanks to these two bases, the Allies were enabled to dominate the Atlantic and deliver the decisive blow to the Axis." They added that upon the shores of the Atlantic, there were three powers imbued with ideas of right and justice, capable of establishing the equilibrium of the Western world.

Defense. Military service is compulsory for men

from twenty to forty-eight years of age, who serve for six years in the regular army. The total strength of the army is estimated at 27,000 enlisted men. There are also about 160,000 trained reserves. Besides the regular army, Portuguese youths from seven to twenty years of age receive military preparation in an organization called *Mocidade Portuguêse,* modeled after the Fascist Corps. There is also a voluntary force of 3,400 men, called *Legião Portuguesa.* The Navy consists of 7 sloops, 6 destroyers, 7 gunboats, 3 submarines and a number of auxiliary vessels.

Economy and Finances. Agriculture is the leading occupation, followed by fishing, mining, and manufacturing. The trade movement for 1945 was as follows: Imports, 3,902,000,000 escudos. Exports, 3,186,000,000 escudos, showing an unfavorable balance of trade of 816,000,000 escudos. (Nominal value of the escudo was $0.0412, November 8, 1943). Analysis of the trade movement by classes (in millions of escudos) is as follows: Imports, livestock, 3.0; raw materials, 2,021.0; textiles, 174.3; foodstuffs, 999.0; machinery, 357.5; miscellaneous, 346.9. Exports, livestock, 16.0; raw materials, 644 7; textiles, 715 1; foodstuffs, 1,107.7; machinery, 36.4; miscellaneous, 666.1.

Colonial Possessions. The Portuguese Colonial Empire in Africa, Asia, and Oceania consists of:

TABLE OF PORTUGUESE POSSESSIONS IN AFRICA ASIA AND OCEANIA

Colonies	*Area Sq. Mi.*	*Population*
Possessions in Africa		
Cape Verde Islands (1940) ...	1,557	181,286
Guinea (1940) .	13,944	351,089
São Thomé and Principe (1940) .	372	60,490
Angola (1940)	481,226	3,738,010
Mozambique (1940)	297,654	5,081,266
Possessions in Asia·		
In India (1936)	1,537	579,970
China Macao etc (1940)	6	374,737
Possessions in Oceania:		
Timor (1940)	7,330	474,363
Total	803,638	10,830,844

According to the Colonial Act of 1930, each Colony has a Governor and enjoys financial and administrative autonomy. Its budget must be approved by the Minister for the Colonies The natives, and the ownership of land and cultivation are protected by the State, which forbids forced labor.

Portuguese India comprises Gôa, Damão and Diu. Chief products are manganese, coconuts, fish, spices, and copra.

The island of Macao, in China, at the mouth of the Canton River, forms a province with two small adjacent islands The city is divided into two wards, one inhabited by Chinese and the other by non-Chinese, each having its own administrator.

Portuguese Timor consists of the eastern portion of the island of that name in the Malay Archipelago. Principal exports are coffee, sandalwood, copra and wax. (For Portuguese possessions in Africa, see *Portuguese Africa*)

Education and Religion. According to the 1940 census, 67.08 percent of the nation was illiterate, of which 49.03 percent were adults. Compulsory education has been in effect since 1911 and many measures have been introduced to fight illiteracy, although it is obvious that the law is not rigidly enforced. In 1942, there were 10,481 primary schools with 546,790 pupils, 43 secondary schools with 15,-344 pupils; 59 technical schools, with 35,492 students, and three universities: Lisbon, with 3,373 students; Oporto, with 1,636 and Coimbra, with 1,611. Freedom of worship exists, but the Roman Catholic faith prevails and plays an important role in the political, economic and social life of the nation.

Art and Literature. In January, the Tenth Exhibition of Modern Art was inaugurated in Lisbon. It included fifty-five canvases, by thirty-three Portuguese painters, with fourteen paintings by eight foreign artists, as well as fourteen sculptures by eleven sculptors. In the same month, a manuscript found in the library at Evora was published, entitled "The Pilgrimage of Andre de Faro to the Land of the Pagans." It described the adventures of Frei Andre de Faro in the interior of Guinea and Sierra Leone in 1663–1664.

In February, Professor Queiroz Veloso published a new, revised and enlarged edition of his book on King D. Sebastião, a work that throws light on the interesting legends of sixteenth-century Portugal. For the first time in the history of Portuguese letters, a woman won the Ricardo Maleiros Prize, awarded by the Academia de Ciencias de Lisboa. The winner was Fernanda de Castro, poetess and novelist, and the book that earned the distinction was "Maria da Lua."

In April, the Secretariado Nacional de Informacão published an interesting anthology of Portuguese thought, entitled "Idearium."

MIGUEL JORRÍN.

PORTUGUESE AFRICA. This heading comprises five colonies along the west and southeast coasts of the continent. Not included are the Madeira Islands, which administratively are treated as an integral part of Portugal.

Cape Verde Islands. An archipelago of some fourteen islands lying off the coast of Senegal, with an area of 1,557 square miles and a population (1940) of 181,286 (the great majority of which are half-castes, with most of the remainder classified as Negroes). The colony is administered by a Governor, who resides at Praia. The islands' economy is rather primitive and figures very little in world trade. The principal products are sisal, castor oil, high-grade coffee, oranges, brandy, and hides. Porto Grande is an important fueling station for shipping on the routes from Europe to South America and Africa.

Portuguese Guinea. An enclave of territory bounded on all landward sides by French West Africa, with an area of 13,944 square miles and a population (1940) of 351,089 (of which over 98 percent are Negroes). The climate is quite unsuitable for white settlement. The colony produces some agricultural articles for export, such as palm oil and kernels, hides and peanuts, but its importance lies rather in its position near the bulge of Africa, where Pan American Airways found it convenient before the war to establish landing facilities on its transatlantic route. The seat of Government is at Bissau, which is also the colony's chief port. The former capital Bolama, is among the less important ports.

São Thomé and Principe. These two volcanic islands, lying in the Gulf of Guinea, are treated administratively as one unit, with a Governor residing in São Thomé. They have an area of 372 square miles and a population (1940) of 60,490 (of which 56,666 were Negroes). São Thomé is by far the larger and more important of the two, and also accounts for about nine-tenths of the total population. Its mountains rise to some 7,000 feet, the soil is fertile and there is abundant rainfall. Despite their small size the islands produce large amounts of cacao, as well as some coffee, copra, and palm oil. There is a considerable movement of

seasonal labor back and forth between the islands and the near-by continent.

Angola (Portuguese West Africa). This important colony, largest in the Portuguese empire, has an area of 481,351 square miles and a population (1940) of 3,738,010, of which 44,083 were Europeans and 28,305 half-castes. The Negro population consists largely of Bantu stock still dwelling in a tribal state. The administration of the colony is headed by a Governor-General, assisted by an Advisory Council, the members of which are in part appointive and in part the elected representatives of certain economic organizations of the European inhabitants. Educational opportunities are restricted to less than 100 schools but are gradually improving.

Angola is generally regarded as one of the richer colonies in Africa—it was coveted by both the Nazi and Fascist regimes. Portugal has usually looked to Great Britain to help her defend the territorial integrity of her colonial empire. However, Angola's economic development is still only in the early stages. Among the principal exports are coffee, diamonds, sugar, and palm oil. On the interior plateau, which has a temperate climate, it is hoped eventually to open up large areas to European settlers who will produce cotton, wheat, tobacco, and other exportable items. The principal railroad is the Benguela Railway, which runs from Lobito on the Atlantic Ocean through the Belgian Congo to Northern Rhodesia. The future capital, Nova Lisboa, is located along the plateau section of this railroad line. The present capital is the port city of São Paulo de Loanda, established in 1575.

Mozambique (Portuguese East Africa). Mozambique is the most populous of Portugal's possessions, with an area of 297,731 square miles and a population (1940) of 5,081,266—27,438 Europeans, 15,461 half-castes, 9,147 Indians, and 5,027,591 Negroes. The colony is administered by a Governor-General who is assisted by an Executive Council and by a Government Council comprising both officials and representatives elected by certain economic interests. Until 1942 the Companhia de Moçambique administered the territory of Manica and Sofala. Since then the state has been in direct control of the entire colony, which is divided into four provinces: Sul do Save, Manica and Sofala, Zambesia, and Niassa. The capital is at Lourenço Marques. Education is provided by some 700 primary schools, 48 professional schools and one high school.

Mozambique produces very large quantities of sugar, corn, copra, sisal, cattle and other livestock. A great deal of the foreign trade of the Transvaal and its rich Rand mining region passes through the port of Lourenço Marques over the Delagoa Bay Railway. In the same manner, the port of Beira is the outlet, over the Beira Railway, for a considerable part of the foreign trade of the Rhodesias. Beira is also connected by rail with the Nyasaland Protectorate. Along this latter route lies the lower Zambesi Bridge, 12,064 feet in length (said to be the longest bridge in the world). There are 1,330 mi. of railroad in the colony, and 18,000 mi. of roads. During 1943 over 931 ships entered the ports of Beira, Lourenço Marques, and Mozambique. In 1944 total imports were valued at 616,247,000 escudos and exports at 557,977,000 escudos.

Events. Early in the year Dr. Marcelo Caetano, Minister of Colonies since 1944, visited Angola and Mozambique. He reported that he was pleased with the social and economic progress being made in those colonies. He took pride in the fact that there were 50,000 white inhabitants in Angola and 27,500 in Mozambique. For the economic development of Angola, he pointed out, the Portuguese government had procured a loan of 250,000,000 escudos. Similar plans were afoot for Mozambique. In the field of administration, the National Assembly in Lisbon approved amendments to the Colonial Act aimed at achieving greater decentralization, and hence responsibility, for the officials in each colony. Another reform led to the reorganization of the Junta de Investigação Cientifica Colonial in order that it might provide more scientific data about the colonies and their inhabitants. During the year the Anthropological and Ethnographic Mission of Mozambique entered upon a six-year study of the peoples of that colony.

There was, however, no suggestion from Lisbon that the inhabitants of the colonies be given more political rights or encouraged to prepare themselves for self-government. Outside observers reported that the régime in the Portuguese possessions was thoroughly authoritarian, with freedom of press and assembly denied, no labor unions allowed, and children forced to join the Fascist-type Salazar Legion.

Trade figures showed a marked increase for the transit trade through Portuguese East African ports. This was particularly true of Beira, through which passed much of the foreign trade of Nyasaland and the Rhodesias, and Lourenço Marques, outlet for the Transvaal. Indeed, there was complaint that the rail and port facilities of Mozambique were inadequate to the demands of traffic originating in the Union of South Africa and British Central Africa.

ROBERT GALE WOOLBERT.

POST OFFICE DEPARTMENT. The United States Postal Service is the largest agency of Government. In carrying out its functions, it employs an army of 450,000 people, who perform their duties in 41,751 post offices.

Post Office revenues during the fiscal year 1946 were $1,224,572,173, and there was a financial turnover of more than $16,000,000,000. There were 36,149,000,000 pieces of mail handled in 1946, an average of approximately 100 million daily. Included in this figure were 19,300,000,000 letters and post cards, 949,000,000 parcels, 5,865,000,000 pieces of newspaper mail, and 6,220,000,000 circulars and advertising matter. In this period, 137,000,000 packages were insured, registry service was given to 97,000,000 pieces of mail, 52,000,000 C.O.D. articles were delivered, and 106,000,000 letters and parcels were sent by special delivery. The total number of money orders issued was 269,829,192 and the amount of money transmitted by this method was $4,748,066,011.52. There were 27,542,693 postal notes sold, with a value of $132,242,528.85.

As of June 30, 1946, there were 8,089 Postal Savings depositories. The number of accounts was 4,135,565 and deposits amounted to $3,119,656,296, an average of $754.35 for each account. The Philatelic Agency in Washington sold, for stamp collecting purposes, $3,020,692 worth of stamps. This was the greatest business done by the Agency since it was established in 1921.

During 1946, the Post Office Department devoted much of its efforts toward restoring service to a normal peacetime basis. In many localities, city delivery in business and residential areas, which had been curtailed during the war, was increased. Added facilities were placed in operation in post offices to better serve the public, additional

employees were hired, and many improvements were put into effect or are planned for the future, all designed to render speedier, more efficient mail service.

The return of the railroad and air-line systems to normal operations greatly improved mail transportation in 1946. New and faster train service resulted in a saving of as much as 24 hours on transcontinental mail, and a comparable saving of time in every section of the country.

Additional Highway Post Offices, which were inaugurated in 1941 on routes in Virginia, Indiana, and California, began service in 1946 in Alabama and Michigan. Highway Post Offices serve cities and towns which do not have adequate rail service, or where rail facilities have been discontinued. Continued expansion of this essential form of mail transportation is planned.

Freed of war-time restrictions and priorities, the air lines expanded tremendously in 1946, on both domestic and foreign operations. On October 1 the Post Office Department reduced the domestic air-mail rate from 8 to 5 cents an ounce. This rate now applies to all territories and possessions and wherever the U S. mail service is in operation, as well as to Canada and Mexico.

Foreign air-mail rates were drastically reduced on November 1. Air-mail rates to South America dropped to 10¢ a half-ounce; to Europe, 15¢; to North Africa, 15¢ and 25¢; to Africa, Asia, East Indies, and South Pacific, 25 cents. Previously, these rates varied from 15¢ to 70¢ a half-ounce.

The Post Office Department in 1946 conducted extensive tests on the carriage of mail by helicopter to determine the practicability of expediting delivery of air mail in large metropolitan areas by this means of transportation. Preliminary figures have shown that much time can be saved in collection and delivery of air mail to localities within such an area. Further tests are planned.

ROBERT E. HANNEGAN.

POWER, Division of. A division of the U.S. Department of the Interior which coordinates the power phases of the various bureaus of the department. Director: Arthur E. Goldschmidt.

PRESBYTERIANS. A religious connection adhering to a system of church government by presbyters or elders and having some 60,000,000 members throughout the world. In the United States there are ten Presbyterian bodies, the largest of which follow.

Cumberland Presbyterian Church. One of the Presbyterian bodies whose chief strength is in the 16 mid-west states. There are a few churches on the west coast. It differs from most Presbyterian denominations on the theological doctrine of fatality. It was organized on February 4, 1810 in Dickson County, Tennessee. There are two presbyteries outside of the United States: Canton in China and Cauca Valley in South America. The 1946 statistical report shows: 1,052 churches; 735 ministers; total membership of 75,427. There was a membership gain over last year of 4,877. The increase in Sunday school enrollment over last year was 4,213. The total valuation of church buildings is $4,080,960 and manses of $532,325. The supreme judiciary, the General Assembly, met in Birmingham, Alabama on June 13–17. The 1947 meeting will be Knoxville, Tennessee, June 12–17. Dr. C. R. Matlock, Nashville, Tennessee, is the moderator. Mrs. T. C. Stockton, Memphis, Tennessee, is president of the Board of Foreign Missions. Bethel College, at McKenzie, Tennessee, is the only college and seminary. Wayne Wiman, 117 Eighth Avenue South, Nashville 3, Tennessee, is the Stated Clerk and Treasurer, Financial Agent, and general traveling secretary of the General Assembly. Rev. J. T. Jones, Stevenson, Alabama, is the assistant stated clerk. The Cumberland Presbyterian Publishing House is located in Nashville, Tennessee.

Presbyterian Church in the United States (South). The division of the Presbyterian denomination which covers the territory commonly known as the Southern States. It was composed in 1946 of 17 synods (in most cases, corresponding to state lines) and 87 presbyteries, with 3,518 organized churches, 2,621 ministers and 593,418 members, exclusive of ministers. During the year 18,913 members were received on profession of faith, and 28,482 by certificate. There were 11,497 adult baptisms and 9,369 infant baptisms. The ruling elders numbered 19,270, and deacons 22,793. Contributions for current expenses during the year amounted to $6,576,406, for pastors' salaries $4,167,886, for building expenses $4,119,475, and for benevolences $6,532,586; a grand total of $21,396,353, an increase over the preceding year of more than $2,700,000. The total per capita gift was $36.06, of which $11.01 was for benevolences and $25.05 for current expenses.

The 86th General Assembly of the Church convened in Montreat, North Carolina, May 23, 1946, with 378 commissioners present. Rev. J. B. Green, D.D., LL.D., professor in Columbia Theological Seminary, Decatur, Georgia, was elected Moderator. Actions taken by the General Assembly of special interest are as follows: The Committee on Cooperation and Union was directed to present to the next Assembly the final draft of the Plan for Reunion with the Presbyterian Church in the United States of America. A separate Committee on Negro Work was erected and an annual budget of $100,000 is to be set up. The Committee was directed to elect a Secretary on Negro Work.

A new Department of Christian Relations was opened with a full-time Director. This agency supersedes the Committee on Social and Moral Welfare, which had been in existence for 12 years. The function of the Department on Christian Relations is "to interpret and present Christ's ideal for the individual and for society. . . ." Rev. J. H. Marion, Jr., pastor of Grace-Covenant Presbyterian Church, Richmond, Va., is the secretary and will give all of his time to the work of this new department.

The work of the Permanent Committee on Radio was expanded and provision was made for a full time Director. The Chairman of the Committee, Rev. John M. Alexander, D.D., pastor of the First Presbyterian Church, Fayetteville, North Carolina, accepted this post and opened an office in Atlanta, Georgia. The Radio Committee and the Department of Men's Work carry on this work in cooperation with the Southern Religious Radio Conference, which was organized by the Baptists, Methodists, and Presbyterians in 1945. Live-voice broadcasts are made weekly according to a schedule which divides the year among these three groups.

Most of the 270 ministers who served as Chaplains in the Armed Forces have been released and are back in pastorates. A few will continue with the Veterans' Administration in hospitals.

Plans are being made for the rehabilitation of the Foreign Mission work in the Orient. Surveys are being made by representatives of the Executive Committee of Foreign Missions and by Missionaries themselves, who have returned to the Orient after an enforced residence in the home land.

Training of recruits for the Ministry and Lay service is conducted in the four Theological Seminaries and the Training School for Lay Workers. Thirteen colleges controlled by synods and two affiliated colleges provide a Christian education for young men and women, who will be the future leaders of the Church. Seven Junior Colleges, eight secondary schools and three mission schools (one for Indians and two for Mexicans) continue to render splendid service. Sixteen Orphans' Homes and Schools take care of the bodily, mental and spiritual needs of more than 1,600 children.

The 1947 meeting of the General Assembly will convene in Montreat, North Carolina on May 29.

United Presbyterian Church of North America. A member of the family of Presbyterian Churches, of Secession and Covenanter origin, formed by the union in Pittsburgh, Pennsylvania, May 26, 1858, of the Associate and Associate Reformed Churches. The General Assembly of the Church convened in Sterling College, Sterling, Kansas, May 29, 1946. The membership of the church is 198,815 in America and 68,992 in Egypt and India. The contributions in America averaged $36.41 per member for the year. The Moderator of the General Assembly is Rev. Lytle Rodgers Free, D.D., Philadelphia, Pennsylvania. The Clerk of the General Assembly is Rev. O. H. Milligan, D.D., LL.D., Pittsburgh 2, Pennsylvania.

PRICE ADMINISTRATION, Office of (OPA). Rapidly changing conditions confronted the Office of Price Administration during 1946 as it continued to carry out the purpose of the Emergency Price Control Act of 1942 "to stabilize prices and to prevent speculative, unwarranted, and abnormal increases in prices and rents." Adaptation of pricing policies to facilitate the transition from war to a peacetime economy, liberalization of the use of wage increases as a basis for price adjustments, and removal of price ceilings from an increasing number of commodities marked the first half of the year. Price controls then ended temporarily upon the expiration of the act on June 30 and a presidential veto of an extension act that he deemed unworkable. A greatly weakened bill finally became law on July 25. It placed emphasis on decontrol, specifically exempted certain commodities from control, and required increases in ceiling prices of many other items. Following a period of confusion in which scarcities developed as goods were withheld from the market in anticipation of the ending of controls, meat was removed from price control by presidential direction on October 14 and the lifting of other controls was ordered accelerated. With so much of the economy freed from price controls, the problems of distortions in production and diversion of goods increased greatly. As a result, the President, on November 10, ordered removal of remaining price controls except those necessary to implement the rationing and allocation programs of sugar and rice. Control over residential rents was continued. An Executive Order on December 12 lodged the remaining functions of OPA, together with certain other wartime responsibilities, in the Office of Temporary Controls.

OPA's ability to maintain price stability became progressively more difficult during the year. As 1946 opened, pent-up consumer demand for goods was unsatisfied since incomes continued relatively high and supplies of consumer goods, particularly durables, such as refrigerators, automobiles etc., remained scarce. Production was hampered by labor-management difficulties; arrival of goods on retail shelves was further delayed by the need to fill distribution pipe-lines and to build distributor inventories. Consumer irritations resulting from these delays furthered a campaign in some quarters to end price controls, as the Congress held extensive hearings and debated approximately five months the need for extending controls. Almost concurrently, OPA was making an increasing number of price adjustments, where necessary, to increase supplies of needed civilian items, to conform to the new wage-price policy, or for other reasons. A total of 649 industry-wide and 12,530 individual company adjustments were made during the first six months of 1946. Despite these price increases, the overall record of price stability as measured by indexes of the Department of Labor was relatively favorable. Consumers' prices advanced 2.6 percent and wholesale prices 5.4 percent from December to June 1946. During the second half of the year, the rise was far more rapid, consumers' prices advancing 15 percent and wholesale prices 24 percent. This sharp rise left the consumer index in December 1946, 55.5 percent higher than August 1939, as compared with 31.7 percent at the close of 1945

The lapse in price controls from June 30 until July 25 stimulated the sharp rise, which OPA found difficult to stem under the terms of the weakened extension act. Although June 30 ceilings were immediately restored to many items, price increases had to be granted promptly to conform with the provisions of the new act, especially because of the requirement that ceiling prices for distributors must reflect average current costs of acquisition plus the average percentage markup in effect March 31, 1946. Previously, OPA had required distributors to absorb all or part of increases allowed to producers. The new statute also reduced the use of government subsidies which had contributed substantially to price stability since May 1943, transferred to the Secretary of Agriculture the decision as to continuance of control over prices of agricultural commodities, ordered immediate decontrol of specified commodities, established methods for hastening decontrol, and provided for a Price Decontrol Board with final authority to decontrol and recontrol prices.

Food prices were most sensitive to the changed situation and rose 30 percent at retail and 40 percent at wholesale during the last half of 1946. Prices of meat and livestock advanced even more sharply. As agitation for removal of controls increased during the second quarter of 1946, withholdings of livestock and meat from market developed. With the lapse of controls, meats shot up nearly 70 percent and livestock more than 20 percent. Partial price declines followed as more livestock came to market and consumer resistance to the higher prices developed. But when the legislation to extend OPA specifically exempted meat from control, at least until August 21, wholesale meat prices once more advanced on the average by almost 90 percent. Decision of the Price Decontrol Board late in August to restore ceilings on meat and livestock led to another spurt of marketings. When price ceilings on meat once more came into effect in September, the nation was confronted with an almost complete disappearance of meat. Rapid marketing of underfed cattle had depleted the feedlots, but organized agitation for removal of price control of meats stimulated widespread withholding of available supplies in the anticipation of higher prices. Price rises of 12 percent at wholesale and 14 percent at retail over June 30 levels allowed at the direction of the Secretary of Agriculture when meat ceilings were restored failed to attract meat to market. When the meat

shortage became so acute as a result of the campaign against meat controls, the President on October 14 directed the lifting of all controls on meat. Prices on meat once more rose abruptly, wholesale meat prices increasing 93 percent during the first week of freedom from controls. By the close of the year wholesale prices for this product were 40 percent above the last controlled prices and 65 percent above the ceilings that had prevailed in June.

The President had directed that removal of other controls be speeded. Most food products had been decontrolled by the end of October and OPA removed ceilings from many other commodities to an extent compatible with economic security. Withholding of controlled goods in the expectation of decontrol then become so serious as to threaten key segments of the economy with paralysis. Consequently on November 10, the President directed removal of other price controls except those over residential rents, sugar, and rice.

Rent control continued throughout 1946 as one of the most successful stabilization programs. Except for individual adjustments of rents, the average level of rents for the nation as a whole remained practically stable, the overall rise over August 1939 being limited to only 4.3 percent.

Sugar was the only commodity still under rationing controls throughout 1946.

Enforcement of price control was a pressing problem during 1946 in the atmosphere of pressures for decontrol and after the brief return to the free market in July. OPA, nevertheless, bent every effort to investigate and prosecute violations. It made an intensive attack on the meat black market and on illegal lumber and building materials transactions. Enforcement activities were continued in the fields in which controls were continued and violations which had taken place prior to the ending of other controls were prosecuted under the provisions of the Price Control Act.

MAX MCCULLOUGH.

PRISONS, PAROLE AND CRIME CONTROL. The past year, the first in seven which has seen no open warfare, was marked at the outset by dire warnings of the crime wave that was to be unloosed on America with the demobilization of millions of men and the return of the country to a complete peace-time economy. These expectations, like those of unemployment and slow peace-time reconversion, did not materialize. The States and the Federal Government, nevertheless, did not find themselves unprepared: plans had been drawn up for the modernization of old institutions and the building of new ones, and many of these would now be built, were it not that housing and other construction took priority of materials and labor. It is to be expected that should a recession from the present high level of employment occur, that plans can go forward at once to replace many outmoded structures and to build modern ones in which more enlightened procedures and methods may be introduced.

The final demolition, in December 1945, of the old cell block at Sing Sing, which had been built one hundred twenty years ago, is but one sign of the times. The disappearance of this structure, in use until 1943, and condemned annually since 1916, like the abandonment of the Tombs in New York City, is another indication that the hold of yesterday's penology on today's prison thinking and methods is finally being loosed.

Not only in buildings, but in thinking about their effectiveness, has the first post-war year been marked. It is fair to report that there is a new critical spirit to be seen in the prison field: men coming back from the service to their former positions in the field are carrying with them some of that impatience which gave such good results in the war effort. The coming years should see the working out into practice of many of the forms of treatment —greater variety of extramural programs, a wider use of probation, some experimentation with such devices as hostels, forestry camps, greater pre-release privileges for the man who is shortly to be returned to the community—which are today being discussed.

Prison Population Trends. The population of state and federal prisons and reformatories decreased from 165,585 in 1940 to 127,076 in 1944, a decrease of 23 percent. From 1944 to 1945 the inmate population had increased by only 795, but there are indications since, that the substantial increase in prison commitments which has been predicted for the postwar period may soon materialize. From September 30, 1945 to September 30, 1946 there was an increase of 6 percent in the population of state institutions: there has been no such increase in federal prisons despite the fact that about a thousand prisoners were transferred from the armed forces. The population of federal institutions stood at 18,170 at the end of September 1946 as compared with 18,962 in September 1945. This slight decrease can be accounted for partially by the release of violators of special wartime laws (particularly the Selective Training and Service Act) of whom more than eleven thousand have been committed since 1940. In December 1946 less than 1,500 remained in confinement. Of these 455 were Jehovah's witnesses and less than 50 were conscientious objectors.

This latter group petitioned during the year for release of selective service violators and specifically for amnesty for those with religious objections. By means of hunger fasts, picket lines and even sit-down strikes they brought their plea to public attention, but to date no amnesty has been issued.

Escapes and Riots. Two convicted murderers, who cut their way out of the Washington, D.C. jail with a can opener, dramatized for the residents of that area the insecurity and general loose methods which marked the administration of penal and correctional institutions in the nation's capital. After a Congressional investigation and the passage of several laws clarifying the status of correctional institutions in the governmental set-up, a new director of corrections was appointed directly from the federal prison service. A committee to continue the investigation so inauspiciously begun is now at work, motivated by the desire to see the penal and correctional institutions in the District of Columbia set the example for the rest of the country in these matters.

The most dramatic escape attempt in United States prison history occurred in early May at Alcatraz. No prisoners escaped but two officers lost their lives and seventeen others were injured. The revolt was engineered by six of the most dangerous and desperate of the institution's intractable inmates, led by a former bank robber and dishonorably discharged soldier serving a twenty-five year sentence. The escape plot was frustrated at the outset because the prisoners could not obtain the keys to the door leading to the outside yard, but they nevertheless refused to give up their arms and surrender. Thus the mass escape attempt became a revolt, and a gun battle between inmates inside and prison officers and law enforcement authorities outside ensued. This ended by the surrender of the

prisoners after nearly two days of serious rioting. Three prisoners were killed and a number were injured. Among progressive prison administrators the "Battle of Alcatraz" has not altered the basic philosophy of hope and rehabilitation. While some prisoners are desperate and ruthless men who will stop at nothing, not even murder, this small group will not be permitted to impair or handicap programs now in effect for rehabilitating the more hopeful offenders.

State Penal Developments. The States of Florida, Oregon, West Virginia, Louisiana, Washington, and Ohio made considerable progress in the evaluation of their entire penal program. Florida will have a new women's institution and a new reformatory, it is hoped, as a result of this survey, and West Virginia bids fair to reorganize entirely its system of institutions and county jails.

California, after five years' experience with the Youth Correction Authority Act, paused to appraise the effectiveness of its operation and to plan for further implementation of the provisions of this legislation. The Youth Correction Authority Act idea is the most hopeful forward step that has been taken in American criminal justice in the past decade. Of the many states which have in recent years looked into the provisions of this Act, Minnesota is among the most recent.

The Federal Corrections Act was again introduced with the hope that its passage would give prison administrators a greater opportunity to plan for the rehabilitation of the men entrusted to their care without the restrictions now imposed by the fixed sentences under which men are committed to federal custody. It was only fifteen years ago that Congress enacted a bill under the provisions of which the judges, instead of committing directly to one institution, sentenced men generally to the custody of the Attorney General. At first this act met with considerable opposition from some of the judges but this statute is now generally accepted and approved. Under it, sentenced prisoners are not sent to an institution by the court until their previous background has been studied and appraised and an estimate has been made of their likely response to one of the twenty-seven institutions under the supervision of the Department of Justice. After further observation, the classification committee at the institution decides whether their needs would not be better served by transfer to another institution.

This same flexibility is the core of the English Criminal Justice Bill, originally introduced in Parliament in 1939. Postponed because of the war, this bill will again be brought up for consideration as soon as some of the more important Labor Party proposals have been disposed of. American students and practitioners in the criminal justice field will await with interest the results of this monumental new effort to integrate and rationalize the sentencing, treatment and release of persons convicted of crime.

Incidentally, while much has been made of the increasing number of young people arrested for crime in America, it is interesting to note that the City of London reports that last year over one-half of all arrests were made on persons under 21 years of age. This group accounted for more than 41 percent of all arrests for larceny and more than 60 percent of the arrests for motor vehicle theft. From New Zealand comes word that the percentage of sentenced prisoners under the age of 21 has approximately doubled over the prewar proportion.

War-Time Contributions of Prisoners. Before their contribution to the war passes into history, it may be well to summarize just what prisoners did for victory. According to a 1944 estimate by Army personnel procurement authorities, over 100,000 classed as felons, that is, men who had received a sentence of longer than a year, were inducted into the Army. This figure does not include those who might have gone into other branches of the service, nor those who were accepted after this date. Nevertheless, it is heartening to realize that so great has been the change in the public attitude toward men with criminal records, that upwards of seven full-strength divisions can be considered to have been drawn from the ranks of the convicted. It is indeed to be hoped that the Army, in altering a precedent which had stood since 1878, will not allow the termination of hostilities to deter it from this present enlightened course.

In prison work shops all over the country, men serving sentences, many of them working overtime, produced a total of 136 million dollars worth of war goods. This figure, through the end of 1945, includes 57 millions from state prisons and reformatories and 79 millions from federal penal and correctional institutions. Farm produce and articles for peace-time consumption are excluded from this sum.

Additionally, prisoners all over the country responded wholeheartedly to calls for bond purchases and for donations of blood plasma which went directly to the fighting fronts. Men behind prison bars offered themselves for experimental purposes, and made important contributions, as a result, to studies in the use of animal plasma for transfusion purposes, to studies of malaria and other wartime diseases. Some lost their lives in the course of these experiments, and were granted posthumous pardons.

Preliminary studies made in Illinois, New Jersey, New York, and by the Federal Government lead to the conclusion that men with prior criminal records averaged about the same as those inducted from the ordinary population. The percentage of those former prisoners who won advancement and special awards paralleled the all-over figure for all soldiers and sailors, while the proportion of those who were court-martialed and got into trouble otherwise does not seem to have exceeded the average. It is to be hoped that more precise studies at a later date may be made in order that these figures may be verified. The fine spirit displayed by these men at a time of extreme national emergency has led leaders in the field of penology to wonder whether more may not be done in peacetime to give sentenced prisoners an opportunity to work for the national interest, in the course of their sentences, for injury done to the State.

The end of the year 1946 also saw the discontinuance of the special selective service panel boards which had been set up in prisons and reformatories throughout the country in 1942. These panels, acting like any neighborhood selective service board, registered, classified, and readied for induction men who, despite their criminal records, were considered by induction authorities to be worthy potential members of the armed forces.

Juvenile Delinquency. The office of the Attorney General has in recent years provided leadership in the field of crime control. Under Attorney General Mitchell, the Wickersham Commission explored the phenomenon of gangsterism and laid the foundations of a policy which resulted in the reduction of that menace to civil order. Homer Cummings in 1934 called a conference to review the general picture of crime in the United States, and measures to be taken to meet it. Mr. Frank Murphy, as At-

torney General in 1939, called the Conference on Release Procedures at a time when parole had fallen into disrepute because of attacks launched against it in high places.

It is quite in the order of things, therefore, for Mr. Clark to have issued a country-wide call to a Conference for the Prevention and Control of Juvenile Delinquency. Meeting in Washington from November 20–23, the Conference has for the first time made a well-rounded national presentation of the factors conducive to the development of delinquent careers and the measures which should be taken to correct them. It was the expressed intent of the delegates to pursue the problem further with regional and local conferences which will take up from where the national conference left off. The proceedings of the conference are awaited with great interest and may well prove to be the most important contribution to date to the literature in this field.

The indivisibility of the entire field of crime control is emphasized by the calling of this national assembly to consider the more effective prevention and treatment of criminal conduct. The conviction grows that the various local and state jurisdictions must integrate their programs on a national basis: recent mobility of our population has demonstrated that state lines are no barrier to criminal behavior; that the state which does not effectively prevent crime or treat the offender within its borders has no sure guarantee that its laxity may not be matched by the indifference of another state. The boundaries of crime are national and not statewide, and we may expect that the coming year will see many signs of the acceptance of this fact.

The County Jail. The local jail is a perennial topic of discussion and appraisal, and rightly so, because of the fundamental part which the county jail plays in the total picture of crime control and treatment. Like the local court, the largest proportion of offenders pass through the local jail and their penal experience goes no further. All accused awaiting trial who cannot make bond, some witnesses, many children, and too many alcoholics and prostitutes for whom no other form of treatment has been devised know the inside of the local jail.

Since the Federal Bureau of Prisons boards an average of between three and four thousand prisoners annually in non-federal jails, it has for many years maintained an inspection service for the purpose of approving those which come up to its standards and refusing to contract for the boarding of federal prisoners in those which fall too far below it. Up to the end of the year only 444 of the 3,127 county and city jails inspected since 1930 were fully approved for federal use. This constitutes only 14 percent, and of these, four-fifths rated less than 60 percent on the scale used to appraise such matters as food, cleanliness, supervision, and safety. Eighty-two percent of the jails inspected in the past sixteen years rated less than 50 percent on this scale; only 2 percent rated 70 percent or above.

The condition of our jails generally in the year following the close of World War II provides little basis for optimism. Only 30 percent of the jails inspected this year appeared to have improved as compared with prior inspections, while 47 percent appeared to be worse. The conclusion is inevitable that most local jails—institutions which lie completely within the administrative domain of sheriffs or other locally elected officials—continue to constitute a disgrace to our democracy Deplorable jail conditions must be attributed in part to the indifference of the local citizenry where such conditions are allowed to continue. In this regard it is hoped that the recent wave of public interest and indignation following upon a series of articles in two popular magazines will go far to awaken the ordinary citizen to his responsibility in this connection. Until this public concern is reflected in standards far above what are commonly accepted by our communities, the jail will continue to be a national disgrace and a source of corruption at the very root of crime control, largely undoing all that may be attempted in the way either of crime prevention or of decent and humane treatment at the prison level.

Army and Navy Correctional Programs. The two branches of the service continued to make progress in the field of enlightened treatment and rehabilitation of the offender in uniform. The number of men in Army custody dropped from the previous year's high of 35,800 to 13,900, while comparable Navy figures show a reduction from 16,100 to 8,800, of whom 1,400 were awaiting trial, the remainder being under sentence. These figures do not include a total of 3,913 in custody of the Federal Bureau of Prisons, by transfer from military or naval installations. These long-term or serious offenders comprise 3,862 committed by the Army and 51 from the Navy.

Army and Navy correctional programs, staffed during the war by career persons drawn from civilian agencies, while now manned by regular Army and Navy personnel, nevertheless continue the high standards and the progressive programs initiated during the war years. The War Department has restored to active duty more than 24,000 court martial prisoners. The Special Clemency Boards set up by the Under Secretary of War reported they had reviewed a total of 28,400 sentences. With the completion of this work, all men still serving court martial sentences will have their cases reviewed annually. It is estimated that by 1950 less than 1,500 of these military offenders will continue in custody.

In December 1946 the Army opened its newest disciplinary installation at Camp Cooke, California. This institution, patterned after the Federal Penitentiary at Terre Haute, Indiana, and under the command of Col. J. W. Fraser, who formerly headed the War Department Correction Division, will, it is hoped, ultimately supplant the old military prison at Fort Leavenworth which is long outmoded.

The Navy announced a change in the names of its Naval Prisons at Portsmouth, New Hampshire, and Terminal Island, California, to Naval Disciplinary Barracks, in line with the rehabilitation being carried out at those two institutions. The War Department, in adopting a policy of parole supervision for men discharged before full expiration of sentence, gave a further indication of its acceptance of modern correctional standards, and integrated its program of treatment. Federal probation officers are expected to supervise Army parolees, as they now do parolees from federal penal and correctional institutions.

International Penal Affairs. The chief development of note in this field was the revival of interest in the International Penal and Penitentiary Commission, with headquarters at Berne, Switzerland. This Commission was originally established through the efforts of an American penologist, Dr. Enoch Wines, in 1870, and it is therefore fitting that an American, Sanford Bates, of New Jersey, now leads the organization as it heads into a period of constructive post-war activity. The Economic and Social Council took note of international penal affairs when it charged the newly created Social Commission to undertake, as one of its functions, responsi-

bility for the development of an international program for the prevention and treatment of crime and criminals. The precise place of the International Penal and Penitentiary Commission under the United Nations is not yet determined as this is written, but there is ample assurance that some machinery will be developed which will make possible an interchange of ideas, information and personnel among United Nations members as to progressive developments in the field.

The influence of the American viewpoint on penal affairs in occupied Germany and Japan seems to be growing. The Allied Control Commission for Germany accepted a set of basic penological principles to govern the administration of German prisons which was prepared by the American representative. These principles provided for more liberal treatment than characterizes the Continental systems. It abolishes, for instance, corporal punishment and enunciates the principle that prisoners should be permitted a certain amount of group recreation and exercise, contrary not only to the system prevailing in Nazi Germany, but in some other European countries as well. The prisons of Japan are likewise under the supervision of an American penologist who is modernizing these institutions and bringing their methods in line with the program and philosophies of the Western nations.

JAMES V. BENNETT.

PROCUREMENT DIVISION. A Division of the U.S. Department of the Treasury which procures supplies and services for the Government and controls the disposition of government property, exclusive of realty. In addition to its usual peacetime activities, the Division now maintains and replenishes stocks of strategic and critical materials, buys products for Lend-Lease and for relief distribution through the Red Cross. Federal Business Associations located in the larger centers of the United States function as agencies of the Procurement Division to promote cooperation among the local federal activities with the object of effecting economies and increasing efficiency in the transaction of routine business of the Government, as well as assisting in various projects of the Procurement Division as requested. A Price Adjustment Board renegotiated war contracts consummated by the Procurement Division. Director of Procurement: Clifton E. Mack.

PRODUCTION AND MARKETING ADMINISTRATION: An agency of the U S. Department of Agriculture, created Aug. 18, 1945, which consolidated several existing agencies. It consists of 10 commodity branches, 8 functional branches, a Field Service branch, 4 staff offices, the Commodity Credit Corporation, and the Federal Crop Insurance Corporation. One commodity branch exists for each of the following: cotton, dairy products, fruits and vegetables, grain, livestock, poultry, special commodities, sugar, and tobacco. Each branch is responsible, with respect to the commodities over which it has jurisdiction, for production, adjustment, purchases, subsidies, loans, processing, price support, and distribution. It may establish programs to effect economies in processing and marketing of food. It may cooperate with industry and other agencies of the Department in developing new or substitute products. It supervises market news services and maintains standards by means of inspection and grading. Administrator: Jesse B. Gilmer (acting).

PROTECTION AND SALVAGE OF ARTISTIC AND HISTORIC MONUMENTS IN WAR AREAS, American Commission for. A Commission announced by the U.S. Secretary of State, Aug. 20, 1943, which functions in conjunction with the War Department, State Department, and other government agencies, as well as with various museums, universities, and scholars, for the conservation of works of art and monuments in war areas. It is also charged with the duty of urging the restitution of works of art and archives appropriated by the Axis powers or individuals acting under their authority or consent. The Commission cooperates with similar committees of other countries, or of the United Nations, in furtherance of those objectives. Chairman: Justice Owen J. Roberts.

PROTESTANT EPISCOPAL CHURCH. The fifty-fifth General Convention of the Episcopal Church meeting in Philadelphia, September 10–20, gave unmistakable evidence of the Church's concern for its world-wide mission. Not only did the Convention adopt a missionary program and budget larger than that proposed by the National Council, but in a movement begun and vigorously carried forward by laymen in the House of Deputies, enthusiastically instructed the National Council to raise at least a million dollars in each of the next three years for world relief. This action was concrete evidence of the Church's living belief that Christ's body is one, though at present having many members. When one Member suffers, all the Members suffer. The extension of Christ's Kingdom, and the continuation of Christian civilization depend upon the revival of the life and work of Christian Churches everywhere, and especially in Europe and Asia, laid low by war destruction.

This assistance will be a tremendous power for a Christian peace. But Convention went a step further and in unmistakable language recorded its belief in the United Nations as "the only established agency through which the peoples of the world can at this time pursue the establishment of world law" and declared "its conviction that peace among peoples and between nations can be maintained only under law which involves a representative legislative body, elected by the people of the constituent nations, whose laws shall be addressed to the citizens individually, interpreted by the people's courts, and in force by an executive answerable to the people."

Other important actions included: the election of the Rt. Rev. Henry Knox Sherrill of Massachusetts as Presiding Bishop, to succeed the Rt. Rev. Henry St. George Tucker, who retired because of age; the election of Justice Owen J. Roberts as president of the House of Deputies, and the Rev. C. Rankin Barnes as secretary, to succeed the Rev. Franklin J. Clark, whose 27 years of service were recognized in a resolution of appreciation; the voting to seat Mrs. Randolph Dyer of Missouri as a deputy without prejudice to future action on the subject of women as deputies. Mrs. Dyer became the first woman ever to sit as a deputy.

It adopted a budget for 1947 of $3,386,887, with increases to $3,560,000 for 1948 and $3,910,000 for 1949. This represents substantial increases over the past triennium of which some of the most significant were: for salary increases to workers in the foreign field, $50,000; for salary increases in the domestic field, $18,080; for the new Chinese missionary district of Yun Kwei, $20,000; in addition to the $17,150 proposed by the National Council for rural work, $60,000. There were also increases for work in Japan, the Philippines, the Canal Zone (for new work in Central America), American Churches in Europe (providing for a full-time bishop), and youth work.

There was approval of the establishment of an Episcopal Film and Radio Commission under the Department of Promotion. It requested the Lambeth Conference, meeting in 1948, to give attention to ways of closer cooperation and coordination in the missionary work of the Anglican Communion. It accepted the transfer of work in Nicaragua, Costa Rica, and the Republic of Panama from the British Diocese of Honduras. It substituted for the resolutions to study the Proposed Basis of Union (advocated by the majority of the Commission) a proposal supported by the minority members giving the Commission a new directive for negotiations with the Presbyterians and other Christian bodies. The resolutions called upon the Commission to draw up a statement, based on the Lambeth Quadrilateral, of the conditions on which the Episcopal Church will enter into "intercommunion," looking forward to ultimate "organic federation"; and ask the Presbyterians to prepare a similar statement. The phrase, "organic union," hitherto interpreted as requiring amalgamation of dioceses with presbyteries, and General Convention with General Assembly, is omitted from the resolutions as adopted Approved membership of the Episcopal Church in the National Council of Christian Churches in the USA, overall interchurch agency combining the Federal Council with various other agencies.

Greetings were exchanged with the Patriarch of Constantinople, the Greek Church, the Serbian Church in America, the Japanese Church, the Archbishop of Canterbury, the Archbishop of the West Indies, and two Chinese Bishops were welcomed to the sessions of Convention. A place for Polish Old Catholic bishops as brother bishops in procession at opening service was prepared.

It adopted a revised marriage canon eliminating the Church's one ground for divorce—adultery—and increasing the impediments to marriage to include fraud, coercion, duress, "such defects of personality as to make competent or free consent impossible," and "concurrent contract inconsistent with the contract constituting canonical marriage." It provided for a finding that "no marriage as the same is recognized by this Church exists" if one of these or the former impediments is found to be present in a marriage which has been dissolved or annulled by civil court.

Initial action (subject to final passage in 1949) on providing a suffragan bishop to have charge of the Church's work in the armed forces was taken. By canonical action the acceptance of the retirement of all bishops at age 72 was made mandatory.

Resignations were accepted from: James deWolf Perry as Bishop of Rhode Island, Arthur W. Molten as Missionary Bishop of Utah, who will be succeeded by the Rev. Stephen C. Clark; Harry T. Moore, Bishop of Dallas who was succeeded on October 4 by his coadjutor, C. Avery Mason; Charles S. Reifsnider, James Maxim, who will be succeeded by his coadjutor Edmund P. Dandridge; William T. Manning, S. Arthur Huston as Bishop of Olympia; Cameron J. Davis as Bishop of Western New York; Charles B. Colemore as Missionary Bishop of Puerto Rico who will be succeeded on March 31, 1947 by his coadjutor, Charles F. Boynton; John C. White as Bishop of Springfield. The resignation of the Rt. Rev. Donald B. Aldrich as coadjutor of Michigan on account of ill health was also accepted.

The reunion of Missionary District of Western Nebraska with Diocese of Nebraska was approved. The Reconstruction and Advance Fund presented at the opening service of General Convention amounted to $7,057,919. The Triennial United Thank Offering of the women of the Church totaled $1,631,576.21.

The next General Convention will be held in San Francisco in the Autumn of 1949, which year marks the 400th anniversary of the English Prayer Book.

The headquarters of the National Council, which is also the board of directors of the Domestic and Foreign Missionary Society, are in the Church Missions House, 281 Fourth Avenue, New York 10, New York. The official magazine is *Forth*, William E. Leidt, editor. The President of the National Council is the Rt. Rev. Henry Knox Sherrill, Bishop of Massachusetts.

PSYCHIATRY. War Effects. The full toll of war, in its effects upon the minds of men under stress of combat, has for the first time been revealed in a report by Appel and Beebe (*Jour. Am. Med. Assn.* Aug. 31, 1946), both of the Office of the Surgeon General, U.S. Army. This report, called by Brig.-Gen'l. Wm C. Menninger "without doubt one of the most important psychiatric documents in this war," was based on field studies in Italy by the senior author during the heaviest fighting of the Fifth Army during the break through to Rome and on to the Arno line.

The psychiatry of combat is summed up in "the simple fact that the danger of being killed or maimed imposes a strain so great that it causes men to break down. . . . There is no such thing as 'getting used to combat.'. . . Men will break down in direct relation to the intensity and duration of their exposure. . . . Psychiatric casualties are as inevitable as gunshot and shrapnel wounds in warfare." In the North African Theater "practically all men in rifle battalions who were not otherwise disabled ultimately became psychiatric casualties." The average point at which the soldier became ineffective lay between 200 and 240 aggregate combat days (10 combat days are equivalent to 17 calendar days). It was the consensus of medical and line officers that "a man reached his peak of effectiveness in the first 90 days of combat," after which his efficiency steadily declined until finally he was useless, in most cases after 180 or even 140 days.

The British estimated that the endurance of their riflemen in Italy was about twice that of the Americans, owing to the fact that their infantrymen were withdrawn from the line after 12 days or less for a 4 days' rest, whereas the American soldier was kept in the line from 20 to 40, occasionally even 80 days without relief. The lesson is obvious. The net result was that in the rifle battalions in Italy only about 7 percent of the men held out for 210 aggregate combat days.

This wartime experience offers a lead in preventive psychiatry in civilian life in the regulation of stressful environmental conditions of whatever kind, particularly in industry, as a means for promoting the mental health of the population.

Appel, Beebe, and Hilger (*Am. J. Psychiat.*, Sept. 1946) make a significant comparison of the incidence of psychiatric casualties in World War I and World War II. They report that while available data do not permit strictly accurate comparison, casualties of this type were for obvious reasons much more numerous in the recent conflict than in the war of 1914–1918. They estimate about 140 per thousand men per year in the A.E.F. in World War I and 260 for combat divisions in the European theater (June–November, 1944).

Psychiatry in Industry. The preventive aspect of psychological medicine in industry has received in-

creasing emphasis during the year. At the annual meeting of the American Psychiatric Association, an entire session was devoted to this subject. Psychiatrists attached to the medical services of General Motors, DuPont, and other major manufacturing plants reported the results of their work in resolving personnel problems and contributing to work efficiency and increased production. Dershimer (*Am. J. Psychiat.* Sept. 1946) points out that not only must the industrial psychiatrist understand the psychiatric problems of personnel, but he must be thoroughly familiar with the organization in which they work. "Industries, like individuals, have each their own personalities based on the personalities of top management, on company policies, the type of industry, and a host of other varying factors." As a result of two years' study of the psychiatric problems in industry, Dershimer concludes that "the basic causes of all functional mental disease exist, grow, and cause some manifestations in normal people; that normal people are the hosts or carriers from whom unfortunate individuals contract the more serious, recognized forms of this group of ills. . . . Industry offers the psychiatrist an unique opportunity to explore this important area, now one of almost complete darkness."

Extraordinarily favorable conditions for the development of community and industrial psychiatry were afforded at Oak Ridge, Tennessee, where a wartime city of 75,000 sprang up almost overnight, and where from the beginning psychiatric services were incorporated as a necessary feature of the medical set-up. The recorded experience of the Oak Ridge psychiatrists (Clarke, *Am. J. Psychiat.*, Jan. 1946; Leggo, Law, and Clarke, *Industrial Med.*, Apl. 1946; Clarke and Law, *Occupational Med.*, Aug. 1946) in both prevention and treatment of mental ills offers new and valuable leads in the combined community-occupational field. In their unique Oak Ridge experience only about 10 percent of on-the-job emotional disturbances were traceable directly to the occupational situation; they found the causes of such disturbances mainly within the individual with precipitating factors in the home and in his social environment.

Burlingame, who was the first full-time psychiatrist in industry (1915, The Cheney Silk Company), found "that maladjustment in the emotional drives and attitudes of employees toward the employment situation costs the company more in production than accidents and disease." This author (*Am. J. Psychiat.*, Jan. 1947) gives an excellent review of the history of industrial psychiatry and its present position and prospects, with reference particularly to rehabilitation problems following World War II.

Federal Undertaking. The United States Public Health Service has, during the war years and now in the should-be peace time, taken greatly increased interest in the prevention and treatment of psychiatric disorders as an integral part of the public health program. Felix (*Mental Hygiene,* July 1946), looking to the future, offers a blue print for such a program. That there is a dearth of qualified psychiatrists throughout the country and a woefully unequal distribution is indisputable. It has been estimated that there are only about 3,500 experienced psychiatrists in the United States, about 1,000 of them being with the Army and Navy. These physicians tend to be concentrated in the metropolitan centers. Their numbers vary, according to the directory of the American Psychiatric Association, from 585 in New York State to none in Nevada. More urgently important, however, than a vast recruitment of specialists, is more widespread and better training of medical students, physicians, nurses, and other clinical personnel in psychological medicine, because a considerable portion of this field lies properly in the province of the general physician. Further, there should be an extension of mental hygiene discipline in the schools, at primary and secondary school and college levels, to the end not only of prevention and early detection of unwholesome mental processes, but—best prophylaxis of all—for training youth in the use of their minds. A remark of the psychologist Jastrow may be recalled, that people think first and learn to think afterward. Unfortunately one must sometimes add, "if ever."

The National Mental Health Act, recently passed by the U.S. Congress, is reviewed and discussed by Russell (*Am. J. Psychiat.*, Nov. 1946). The Act "has brought mental illnesses, public provision for which has heretofore been almost entirely a state and local responsibility, within the purview of a national health problem. . . . The Act is designed to bring into action a national mental health program, prepared by the U. S. Public Health Service and directed to (1) training of personnel, (2) research, and (3) improvement of mental health services. The administration is by the Surgeon General of the Public Health Service, assisted by an Advisory Council, consisting of the Surgeon General, chairman ex officio, and six members appointed by him from 'leading medical or scientific authorities who are outstanding in the study, diagnosis or treatment of psychiatric disorders.'"

The Act also provides for the establishment of a ten-million-dollar National Mental Health Institute in the vicinity of Washington. The Institute, which will include a two-hundred-bed hospital and laboratories, is intended to be a national headquarters for training and research in psychiatry. It will also sponsor and aid projects for advancement in psychiatric practice, teaching and investigation throughout the country.

It is to be hoped the realization of this magnificently ambitious program will establish in a too long neglected field a record of accomplishment, by the U.S. Public Health Service to compare favorably with the splendid achievements already to the credit of that service.

The paramount public health problem today is that of providing adequate facilities in all the states of the Union for the treatment of mental illness, including far-reaching improvement in facilities that already exist. There is also the crying need, reiterated through the years, for eliminating partisan political influence in the administration of state mental hospitals.

Urgently required also is a vastly simplified and uniform commitment law which shall apply in all the land. Ideally such a law would be simplified almost to the point of abrogation; for it must be remembered that in most jurisdictions existing laws relating to the disposal of mental patients are but vestiges of an antique social viewpoint from which the 'insane' and the 'criminal' were hardly to be distinguished. It makes us pause to realize that, so far as the public hospitals are concerned, the psychiatric patient is the only sick person who cannot receive the treatment he may urgently require until due process of law has been complied with.

More than twenty years ago the American Psychiatric Association set up minimum standards applying to all aspects of the state psychiatric services. These have been confirmed and reaffirmed from time to time since. They were somewhat elaborated and declared in the most positive manner at the 1946 meeting of the Association. In most state insti-

tutions these minimum goals are still to be attained.

The paths of advance are clear. It will be a test of the purpose of the authorities—the Congress and the Public Health Service—to show in what manner and degree the objectives of the National Mental Health Act can be accomplished. Psychiatry is the unique medical discipline in which from its beginnings on this continent state medicine—or political medicine, as Burlingame appropriately calls it—has had its say and its practice. It has not been exactly a noble experiment. In this federal undertaking now lies the opportunity to do a better job than, in the aggregate, the States have done and so facilitate better work on the part of the States themselves.

Penicillin in Neurosyphilis. In recent years much more aggressive treatment programs have been instituted for psychiatric disorders. Among the newer developments is the employment of penicillin in the treatment of neurosyphilis, including paresis. As is to be expected in the early stages of a new procedure, reports of results are somewhat conflicting. Reynolds, Mohr, and Moore (*J.A.M.A.*, Aug. 17, 1946) conclude that "penicillin gives promise of becoming a valuable therapeutic agent in the treatment of dementia paralytica." These authors reported on 41 patients, 24 treated with penicillin alone, and 17 with penicillin combined with malarial therapy, the latter already an established procedure in the treatment of paresis. Penicillin alone produced "some degree of clinical improvement in 11 of 24 patients (46 percent)." Penicillin and malaria combined gave "clinical improvement in at least 10 of 17 patients (58 percent)." This combination they consider to be "for the present, at least, the treatment of choice for patients with dementia paralytica."

Stokes, Steiger, et al (*J.A.M.A.*, May 4, 1946), on the basis of studies continued since 1943, report definite clinical improvement in 30 percent of their cases of dementia paralytica treated with penicillin alone. The spinal fluid formula showed definite improvement in 62 percent; normal or near normal in 39 percent. These spinal fluid responses suggest almost a tropic selectivity of penicillin for the nervous system. These authors agree that penicillin is outranked by malaria as yet in clinical improvement; but suggest that as the period of observation lengthens it may be found to equal or exceed the efficiency of malaria alone or after routine chemotherapy.

O'Leary, Brunsting, and Ockuly (*J.A.M.A.* Mar. 16, 1946) express less sanguine views. "In cases of early dementia paralytica in which penicillin alone was given, no appreciable clinical improvement was noted. . . . In cases in which malarial therapy and penicillin were administered, the results were comparable to those of the malarially treated group. Our experience was equally unimpressive among the institutionalized paretic patients who had the advanced form of the disease."

Tucker and Robinson (*J.A.M.A.*, Oct. 5, 1946) report serious aggravation of mental symptoms in 2 cases of paresis treated with penicillin; and warn that variations in the commercial product may be responsible for irritative phenomena even of a serious or dangerous kind.

In the treatment of neurosyphilis of all types the majority opinion is that penicillin is the most effective single agent thus far employed; while opinions differ as to the optimum treatment program for the parenchymal form of the disease (paresis), a combination of penicillin with fever therapy being generally favored.

Shock Therapy. The various forms of shock therapy, referred to in previous reviews in the YEAR BOOK, continue to occupy considerable space in the literature, with increasingly conservative evaluation of results and growing demand for more precise criteria by which results can be judged. Nolan Lewis (*Ment. Hygiene*, Apl. 1946) calls for "a more scientific reporting of results." In summing up the evidence to date he finds that insulin therapy, while it has not fulfilled initial expectations, is useful in schizophrenia. Electric shock is the method of choice in affective disorders, particularly the involutional depressions, in which some authors report favorable results in 90 percent of the cases. It is useful also in manic excitement but to a lesser degree. It does not prevent recurrences of depressive or manic attacks. Although less effective than insulin, it has proved of value in certain types of schizophrenia. Cases presenting affective symptoms also, respond better than the uncomplicated forms.

There is a tendency to begin with electroshock in any case judged suitable for shock therapy; also to use various methods, combined or in sequence, if the original series of treatments has not succeeded. The procedure in all forms and combinations of shock therapy is of course wholly empirical. As Gralnick (*Am. J. Psychiat.*, Mar. 1946), reporting results in the treatment of 276 cases over a three-year period, remarks, "The etiology of the diseases we treat is obscure, and the causal connection between the effects we produce and the results we obtain is hardly clear."

Bond (*Am. J. Psychiat.*, Nov. 1946) has established a record in following up his treated cases. "Of 309 schizophrenic patients treated over a 10-year period in an insulin unit 48.8% were recovered or much improved at the end of treatment, . . . 43% at the end of the first year, and 37% at the end of five years. This compares to a recovery-much improved rate of 16% for control cases under hospital treatment without insulin or other shock treatment." Bond considers therefore that insulin shock therapy in schizophrenia has justified itself; and he emphasizes the fact, which he feels has not had enough consideration, that in cases influenced favorably the effect of the treatment is immediate.

Alcoholism. Alcohol addiction, too long regarded merely as a vicious habit and judged from a moralistic or legal point of view, has become within the last few years a serious medical and public health problem and subjected to intensive research. Psychiatry had concerned itself with alcoholism for the most part only as an etiological factor in mental disease. Over the years and in various parts of the country admissions to mental hospitals, attributed to alcoholism, had ranged from 1 to 20 percent of total admissions.

Between the normal drinker and the pathological drinker no sharp line can be drawn; but when, through insensible transition, the drinker no longer controls his habit but is controlled thereby, his case is pathological. In general this means that the alcoholic habit is now a chronic illness and represents some form of personality or mental defect or disorder, toward which, as well as toward the direct effects of alcohol intoxication, treatment must be directed.

This is one of the major problems attacked by various agencies recently set up to study alcoholism. First and principal of these agencies is the Research Council on Problems of Alcohol, organized in 1937 and an affiliate of the American Association for the Advancement of Science. The Council is composed of officers of mental hospitals, insti-

tutions for alcoholics and public health agencies, presidents of universities, representatives of the courts and penal institutions, liquor manufacturers, scientists, business men, religious workers and other interested groups or individuals—and former alcoholics.

The official organ of the Council, the *Quarterly Journal of Studies on Alcohol* has been published regularly since June 1940 and records progress in this long neglected field. An informative brochure, "The Scientific Approach to the Problem of Chronic Alcoholism," issued by the Council, outlines the problems involved, methods of dealing with them and progress to date.

Of drinkers in the United States it is estimated that 6 percent use alcohol to excess; 25 percent of these become chronic alcoholics; i.e., approximately 750,000 U.S. citizens are suffering from chronic alcoholism—a greater number than of active cases of tuberculosis. Remedial measures set forth by the Council include (1) research, (2) increased treatment services, (3) education, (4) industrial and legal controls. Beginnings have been made in certain states, and New Hampshire, New Jersey, Connecticut, and Alabama have established by legislative action special commissions to study alcoholism. In addition a number of cities have set up committees and clinics to deal with the problem.

In the words of President Carlson of the Research Council, "History shows that the solution of the problem of alcoholism lies not in national confusion and neglect, and not in national prohibition. Alcoholism has become a major social and public health problem." And Mr. Howard Coonley, former president of the National Association of Manufacturers, adds, "The medical and scientific approach to the problem of alcoholism should go far toward preventing another prohibition fiasco. . . . Medical Science is working toward a better solution, and the country should support the efforts of scientists in dealing with the problem."

CLARENCE B. FARRAR.

PUBLIC BUILDINGS ADMINISTRATION (PBA). An agency of the U.S. Government under the jurisdiction of the Federal Works Agency. It is responsible for the administrative, technical, and clerical functions incident to the design, construction, maintenance, and repair of federal buildings. The Emergency Operations Unit builds federally constructed schools, hospitals, and health buildings under the War Public Works Program. Commissioner in 1946: W. E. Reynolds.

PUBLIC FINANCE. Substantial progress was made during 1946 in shifting the Federal finances from a war to a peacetime footing. The Treasury's deficit, which aggregated $20,676,000,000 for the fiscal year ended June 30, 1946, was expected to drop to $2,293,000,000 for the 1947 fiscal year. The extent of the reduction in expenditures for the first full postwar fiscal year was disappointing, however. The budget listed outlays of $42,698,000,000 for the year ended June 30, 1947, although during the war "normal" postwar Federal expenditure of between $25,000,000,000 and $35,000,000,000 was anticipated. However, revenues ran well in excess of estimates owing to the high level of national income and the consequent greater than expected productivity of Federal taxes.

On a cash basis, the Federal budget was more than balanced in the 1947 fiscal year. Government agencies and trust funds had a larger surplus of receipts available for the purchase of Government securities than the deficit shown by the budget, so that there was an excess of cash receipts for the year that could be used to reduce the amount of national debt outstanding in the hands of the public.

The year 1946 witnessed the first decline in the public debt since 1930. After reaching an all-time peak in February of $279,000,000,000, the total was reduced to $259,000,000,000 by the end of December. This large debt reduction was made possible only by the huge increase in the Treasury's cash balance in December, 1945 caused by heavy oversubscription of the Victory loan. Between February 28 and December 18, $23,300,000,000 of maturing certificates of indebtedness, notes, and called bonds were paid off, the Treasury simultaneously reducing its war loan deposit account in commercial banks from $24,400,000,000 to $2,200,000,000. At the latter level, Treasury bank deposits had been cut down to what is considered a normal peacetime total equal to about one month's expenditures of the Federal Government.

Federal Expenditures. Outlays of the Federal Government in the fiscal year ended June 30, 1946 aggregated $63,714,000,000, as compared with $100,405,000,000 in the preceding war year Of the total, national defense accounted for $45,012,000,000, veterans' services and benefits $4,414,000,000 and interest on the public debt $4,748,000,000.

The 1947 budget message of the President presented a functional classification of Government spending for the first time, in lieu of the classification previously used based upon spending agencies This functional classification of expenditures for 1946, with estimates for the 1947 and 1948 fiscal years, follows:

BUDGET EXPENDITURES BY MAJOR PROGRAMS
(For fiscal years in millions of dollars)

Program	*Actual 1946*	*Estimate 1947*	*Estimate 1948*
National defense	$45,012	$14,726	$11,256
International affairs and finance.	1,464	6,394	3,510
Veterans' services and benefits	4,414	7,601	7,343
Social welfare, health, and security	1,113	1,570	1,654
Housing and community facilities	−180	544	539
Education and general research	88	71	88
Agriculture and agricultural resources	752	1,117	1,381
Natural resources	257	728	1,101
Transportation and communication	824	905	1,530
Finance, commerce, and industry	30	83	426
Labor	104	124	118
General government	972	1,545	1,492
Interest on the public debt	4,748	4,950	5,000
Refunds of receipts	3,119	2,155	2,065
Reserve for contingencies		10	25
Adjustment to daily Treasury statement basis	997		
Total	63,714	42,523	37,528
From—			
General and special accounts.	65,019	42,698	36,699
Corporation accounts	−1,305	−175	829
Total	63,714	42,523	37,528

Under the new classification, outlays on atomic energy are shifted from national defense to natural resources, and expenditures for supplies and administration of occupied areas, other than army pay and subsistence, are listed under international affairs and finance. Expenditures projected for the Atomic Energy Commission were $201,000,000 in the 1947 fiscal year and $443,000,000 in the fiscal year 1948. In 1947, part of the outlay for this purpose was listed under national defense.

National defense promises to remain the largest item of Federal expenditure for a long time to

come. The break-down of national defense estimates is as follows:

NATIONAL DEFENSE EXPENDITURES
(For fiscal years in millions of dollars)

Program or Agency Concerned	*Actual 1946*	*Estimate 1947*	*Estimate 1948*
Military defense:			
Military	$24,846	$6,741	$6,658
Atomic energy	430	179	
Naval defense	16,763	5,588	4,423
Terminal leave for enlisted personnel	....	1,900	250
Activities supporting defense:			
Lend-lease (excluding War and Navy Departments):			
Treasury Department	672	333	34
Maritime Commission and War Shipping Administration	1,045	411	....
Agriculture Department	1,003	5	....
Other	45	35	....
Stock piling of strategic and critical materials			
Treasury Department	...	177	243
Reconstruction Finance Corp	..	−87	−210
Reconstruction Finance Corporation (other)	−53	−337	−121
War Shipping Administration (other)	187	−250	−34
Other	74	30	13
Total	45,012	14,726	11,256
From—			
General and special accounts	45,066	15,149	11,587
Corporation accounts	−53	−424	−331
Total	45,012	14,726	11,256

Second in importance among Federal expenditures are veterans' services and benefits. These expenditures were broken down as follows in the budget:

VETERANS' SERVICES AND BENEFITS
(For fiscal years in millions of dollars)

Program or Agency Concerned	*Actual 1946*	*Estimate 1947*	*Estimate 1948*
Readjustment benefits, Veterans' Administration	$1,350	$3,467	$3,462
Pensions, Veterans' Administration	1,261	2,165	2,492
Insurance, Veterans' Administration	1,395	979	73
Hospitals, other services, and administrative costs:			
Construction			
Veterans' Administration	27	37	84
Federal Works Agency	...	40	50
War Department	.	37	290
Current expenses			
Veterans' Administration	377	870	890
Federal Works Agency	3	6	1
War Department	..	...	1
Total	4,414	7,601	7,343

A new item in the budget not found in pre-war years is the large appropriation for international affairs and finance. Even in the fiscal year 1948, more than $3,500,000,000 is slated to be spent on this account. This total consists of the items listed at the top of column 2.

Federal Revenues. Receipts of the Federal Government in the fiscal year 1946 showed only a small decline from the peak attained in 1945, despite the elimination of the excess profits tax and reductions in other income taxes immediately after the end of the war. Budget receipts totaled $43,038,000,000 in the fiscal year ended June 30, 1946, as compared with $47,740,000,000 collected in the 1945 fiscal year. The chief sources of the Treasury's receipts in 1946, and estimates for 1947 and 1948, are listed on column 2.

It will be noted that a decline in excise taxes for the 1948 fiscal year is listed, due to the expiration of wartime rates June 30, 1947, or six months after the President's proclamation terminating hostilities. The President proposed extension of these rates on a permanent basis, as indicated at the bottom of the above table.

INTERNATIONAL AFFAIRS AND FINANCE
(For fiscal years in millions of dollars)

Program or Agency Concerned	*Actual 1946*	*Estimate 1947*	*Estimate 1948*
Reconstruction and stabilization:			
Subscriptions to International Fund and Bank	$159	$1,426	....
Treasury loan to United Kingdom	....	1,500	$1,200
Reconstruction Finance Corporation loans to United Kingdom	−39	−39	−40
Export-Import Bank loans	464	1,025	730
Aid to China	120	...	....
U.S. Commercial Company	−118	20	....
Foreign Relief:			
United Nations Relief and Rehabilitation Administration	743	1,515	305
War Department (occupied countries)	..	556	645
Other	4	3	....
Philippine-aid program	28	105	137
Membership in international organizations	2	15	18
Foreign relations			
State Department	81	140	173
Other	20	12	15
Proposed legislation	..	116	326
Total	1,464	6,394	3,510

BUDGET RECEIPTS
(In millions)

Source	*Actual 1946*	*Estimate 1947*	*Estimate 1948*
Direct taxes on individuals	$19,008	$18,637	$19,120
Direct taxes on corporations	12,906	9,227	8,270
Excise taxes	6,696	7,283	6,118
Employment taxes	1,714	1,955	2,694
Customs	435	496	517
Miscellaneous receipts			
Present law	3,480	3,987	2,620
Proposed legislation	.	.	379
Total receipts	44,239	41,585	39,717
Less net appropriation to old-age and survivors insurance trust fund	1,201	1,355	1,987
Budget receipts	43,038	40,230	37,730
Proposed continuation of war excise rates (not included in Budget receipts)	...	37	1,130

Public Debt Management. Application of Government deposits in banks to the retirement of maturing and called Treasury obligations during the year brought about a reduction of more than $20,000,000,000 in the public debt between February 28 and December 18. The effect of this debt retirement program was as follows:

COMPOSITION OF U.S. GOVERNMENT DEBT
(In billions of dollars)

	Feb 28, 1946	*Dec 18, 1946*	*Change*
Treasury bills	$ 17 0	$ 17 0	
Certificates of indebtedness	41 4	30 0	−11 4
Treasury notes	19 6	10 1	−9 5
Treasury bonds	121 6	119 3	−2 3
Other bonds	0 2	0 2	. ..
Total marketable obligations	199 8	176 6	−23 2
Savings notes	8 0	5 8	−2 2
Savings bonds	48 7	49 7	+1 0
Depository bonds	0 5	0 3	−0 2
Armed forces leave bonds	....	0 5	+0 5
Special issues to government agencies and trust funds	20 9	24.3	+3 4
Total nonmarketable obligations	78.1	80.6	+2 5
Noninterest bearing debt	1.3	1.5	+0 2
Gross public debt	$279.2	$258.7	−20.5

There were no public offerings of Treasury marketable securities for new money during 1946. Treasury bills were sold weekly to replace those maturing, and ⅞ percent certificates of indebtedness were offered in exchange for a part of those maturing during the year. Treasury notes falling due in March, July, and December, and bonds called in March and June, were redeemed for cash.

Sales of savings bonds were continued actively during the year, and a special effort was made late in the year to increase public subscriptions. However, redemptions of Series E bonds materially exceeded new sales. This was more than offset by excess sales over redemptions of Series F and Series G bonds. Sales and redemptions each month of Series E, F, and G bonds were as follows:

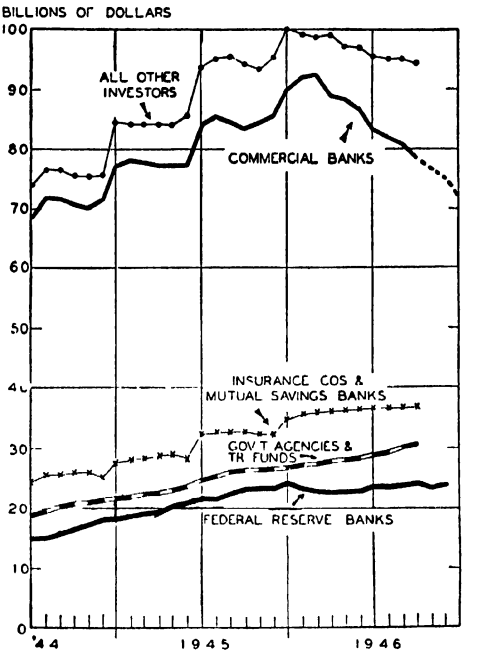
UNITED STATES SAVINGS BONDS
(In millions of dollars)

Month	SALES Series E	SALES Series F	SALES Series G	REDEMPTIONS Series E	REDEMPTIONS Series F	REDEMPTIONS Series G
January	641	40	278	535	13	33
February	367	30	225	486	15	30
March	371	27	228	543	16	37
April	388	29	250	538	13	31
May	345	24	225	462	17	37
June	321	24	226	432	15	36
July	386	31	335	435	18	40
August	347	25	217	393	17	34
September	309	20	165	402	16	34
October	327	24	169	405	14	33
November	294	20	139	329	17	40
December	370	29	178	386	17	42

The average interest rate on the entire public debt increased during the year from 1.963 to 2.056 percent. This increase occurred despite the fact that there was no change in the public debt interest rate structure. Reduction of the amount of low-rate certificates of indebtedness and notes outstanding, the relatively high rate of interest payable on special Treasury issues sold to trust funds and agencies and the higher interest accruing on savings bonds that remain outstanding contributed to raising the average rate on the public debt as a whole.

Treasury agencies and corporations added substantially to their holdings of Government securities during the year. The increase of these holdings, and the identity of the agencies acquiring them, may be seen from the following table:

companies and savings banks added to their holdings of Government securities, as shown by the accompanying chart.



HOLDINGS OF U.S. GOVERNMENT SECURITIES

Government Corporations. Several Government-owned corporations that played an important role in the war, such as the Rubber Development Corporation and the Defense Homes Corporation, were slated for early liquidation. On the other hand, operations of the Export-Import Bank were expanded substantially, while veterans' housing legislation increased the authority of the Federal Housing Administration to insure home mortgages and authorized Reconstruction Finance Corporation to subsidize building materials production.

President Truman's budget message proposed

SPECIAL ISSUES HELD BY GOVERNMENT AGENCIES AND TRUST FUNDS
(In millions of dollars)

Outstanding at End of Month	Total	Federal Deposit Insurance Corp	Federal[a] Old-Age, etc., Ins. Trust Fund	Federal[b] Savings & Loan Ins Corp.	Govt Life-Insurance Fund	Govt Retirement Funds	National Service Life Insurance Fund	Postal Savings System	Railroad Retirement Account	Unemployment Trust Fund	Other
January	20,655	65	5,406	45	606	2,148	4,450	506	668	6,748	12
February	20,897	70	5,406	45	606	2,144	4,680	530	655	6,748	12
March	21,135	85	5,586	46	612	2,106	4,785	592	642	6,668	12
April	21,224	85	5,581	46	612	2,089	4,935	608	667	6,588	12
May	21,481	85	5,581	47	612	2,090	5,100	628	654	6,673	12
June	22,332	120	5,910	49	684	2,177	5,240	782	657	6,699	12
July	23,045	174	5,910	50	889	2,404	5,330	816	810	6,649	12
August	23,443	174	5,910	50	939	2,399	5,520	844	796	6,784	26
September	23,854	174	6,200	52	1,012	2,388	5,570	870	782	6,779	26
October	24,015	179	6,190	53	1,135	2,379	5,595	890	812	6,754	26
November	24,254	179	6,190	54	1,207	2,367	5,645	908	799	6,854	31
December	24,585	189	6,440	56	1,226	2,381	5,675	938	785	6,854	31

[a] Federal Old-Age and Survivors Insurance Trust Funds. [b] Federal Savings and Loan Insurance Corporation

The Treasury's debt retirement program produced a substantial decline in holdings of Treasury securities by commercial banks and by corporate investors who applied Government security holdings to pay taxes and meet business expenditures. Some individual investors who had subscribed to the Victory loan on a speculative basis also liquidated on balance. On the other hand, insurance

that the activities of Government corporations be focused upon veterans' housing, rural electrification, price support for farm commodities, and foreign loans. Such activities could properly be carried out by corporations, rather than by direct Government agencies, because their activities are considered potentially self-sustaining and involve transactions of a business character with the public.

The President proposed, however, that the authority of Government corporations to sell guaranteed obligations to the public be repealed, so that they would have to obtain their funds exclusively from the Treasury.

Congressional authority was asked for the redemption by the Federal Deposit Insurance Corporation of its stock held by the Federal Reserve banks, and of $100,000,000 of the $150,000,000 of stock originally acquired by the Treasury.

Government corporations had a total borrowing power of $32,199,000,000 on June 30, 1946, and had issued obligations totaling $11,964,000,000. Of this total, $11,673,000,000 was owned by the Treasury, and $291,000,000 by other holders.

JULES I. BOGEN.

PUBLIC HEALTH SERVICE, U.S. The United States Public Health Service, a unit of the Federal Security Agency, is the principal Federal agency devoted to protection of the nation's health. Its functions are: to extend and improve State and local health services through leadership, technical assistance, and the administration of financial aid; to protect the nation from the introduction of dangerous communicable diseases from abroad; to prevent the spread of communicable diseases from State to State; to seek the cause, prevention and cure for the diseases of mankind; to control the manufacture and sale of biologicals; to operate marine hospitals; and to disseminate public health information.

First established as the Marine Hospital Service in 1798 for "relief of sick and disabled seamen," the Service today provides medical care to all United States Merchant Seamen, Coast Guard, Public Health Service Commissioned Corps, field personnel and their families, as well as certain beneficiaries in other government agencies. In July, 1944, an Act reorganized the Service and codified all the existing health legislation and titles of authority into one basic law.

Groups serving as advisory boards to the Public Health Service are the National Advisory Health Council and the National Advisory Cancer Council, specifically authorized by the public health law. These Councils consult with and make recommendations to the Surgeon General in matters concerning grants-in-aid, grants for general research, health activities, and functions of the Service. Other advisory boards are the Sanitation Advisory Board, Advisory Committee to the Division of Nurse Education, Board for the Control of Biological Products, Advisory Council on Nervous and Mental Diseases, Mental Hospital Survey Committee, Committee of Consultants in Dermatology, Committee on Post-War Training of Public Health Personnel, and the United States Public Health Service Advisory Committee on Public Education for the Prevention of Venereal Disease.

The Service is administered through 4 bureaus: the Office of the Surgeon General, National Institute of Health, Bureau of Medical Services, and the Bureau of State Services. Nine District Offices carry on the field activities under the direction of a commissioned medical officer. Eight of these Offices are in continental United States and one is in Puerto Rico.

During 1946 the Public Health Service was reorientated from the emergency demands of wartime. The immediate problem was one of rebuilding depleted health staffs, and of meeting urgent needs accumulated during the war years. The second big job was to gauge present and future needs, and to further the renewed development of integrated health facilities and services. Besides redirecting its own activities, the Public Health Service was also actively concerned in assisting State and local health departments and other health agencies with their reconversion problems.

In the first peacetime year, the Public Health Service expanded into new fields of health activity. The American public had gained a new awareness of health problems during the four years of conflict. Rates and reasons for Selective Service rejections were an index to national health conditions. Accelerated progress in scientific research and medical discovery during the war gave new hopes for physical fitness, and prompted concerted action. Millions of service men and women have been discharged from service with a new knowledge of the benefits of comprehensive medical care and preventive medicine.

New developments affecting Public Health Service were milestones in national and international public health history. They are: (1) the drafting and signing of a Constitution for the World Health Organization; (2) passage of the Hospital Survey and Construction Act; and (3) passage of the National Mental Health Act.

Health on the International Scene. New horizons in the field of public health opened when 61 nations signed the Constitution of the World Health Organization in July 1946, at the International Health Conference in New York. Convened by the United Nations, it set forth a new philosophy of international health relations, and established the framework for an organization of greater scope and authority than any previously created; it was dedicated not only to preventing the spread of disease, but to positive improvement in health for all peoples throughout the world.

International cooperation on health matters was to help to bring about better international understanding and good will. All existing international health agencies were to be brought into relationship with World Health, and leave the way open for the admission of all nations, including nonmembers of the United Nations.

An Interim Commission was set up with the United States as a member, to carry on preliminary activities. The Organization will come into being officially when 26 of the United Nations ratify its Constitution. During the past year, an Office of International Health Relations was established to further the various international activities of the Public Health Service, and to prepare for the responsibilities which will come when the new Organization is inaugurated.

Hospital Act. The Hospital Survey and Construction Act authorized $3,000,000, of which $2,350,000 was appropriated for administration and for grants to States for surveys of hospital needs. The Act authorized the appropriation of $375,000,000 for construction over the next five years. For both surveys and construction, the States were to meet two-thirds of the cost of the program, after submitting a plan for approval before Federal funds can be granted. The Act established the first national policy under which hospitals are to be planned, located, and operated in relation to overall health needs. Evolved through the leadership of hospital authorities, this policy recognizes the integrated role which hospitals, health centers and related facilities must play in future health programs. These are essential workshops in providing even the minimum in modern health and medical services to the nation as a whole.

Mental Hygiene. The National Mental Health Act launched the first national attack on a condition which was already acute, but which the war dra-

matically emphasized. The problem reached national focus through the large number of Selective Service rejections for mental disorders; through the psychiatric experience of our armed forces; and through the severe overcrowding and understaffing of our civilian mental institutions.

The Act authorized the appropriation of $7,500,000 for construction of a National Institute of Mental Health for research, to serve as a center for the coordination of research and the exchange of information, and provide advanced training for specialists in this field. To finance the program, an increase of $10,000,000 a year was authorized in the appropriation for assistance to States, providing for research, for research grants to other institutions, for aid in the training of personnel, and for grants to the States for the development of mental hygiene programs, with special emphasis on prevention and early treatment.

The Mental Health Act is the first permanent Federal legislation authorizing grants to educational institutions.

Aid to States. Under the grant-in-aid program of the Public Health Service, payments to the States for general health services totalled $10,963,653 in the year ending June 30, 1946, or $50,163 more than in the previous year. Federal funds from this grant-in-aid program continued to act as a stimulus for larger appropriations by States. Forty-five States reported an increase of more than $8,000,000 in their 1946 appropriations, and indications were that this amount would be surpassed in 1947. Continuing personnel shortages retarded development of new local health organizations, however, and there was little change in the number of full-time health services operating in the Nation as a whole.

Control of Tuberculosis. The current use of more than 700 miniature film X-ray units by official and voluntary agencies was one result of the stimulus which the Public Health Service gave tuberculosis control. During the past year, the Service stressed the value of routine chest X-rays for all patients admitted to general hospitals, and emphasized the practicability of surveying entire populations of rural areas with mobile units. Design of new equipment improved the efficiency of these units.

Need for treatment facilities for cases found in mass surveys was stressed. More than 15 States appropriated funds for building sanatoria or clinics, or acquired surplus military hospitals for tuberculosis therapy. To restore the convalescent tuberculosis patient to economic self-sufficiency as soon as possible, a joint program of improving methods of vocational rehabilitation was undertaken with the National Tuberculosis Association and the Office of Vocational Rehabilitation. Research continued on a wide variety of problems in the diagnosis, care and treatment of tuberculosis.

Venereal Disease Campaign. With the development and application of new and effective methods for the treatment of venereal disease, the Public Health Service shifted emphasis to the problems of finding new cases of venereal infection, and of tracing and bringing to treatment as many contacts as possible.

Rapid progress was continued. During the year, careful studies of the newest methods of treatment were under way, and 52 additional projects for facilities for the rapid treatment of syphilis were approved. Intensive 45-day community case-finding programs were carried out in four localities, and their success demonstrated that excellent public cooperation was obtainable in this type of survey.

Hygiene in Industry. Fruitful results came from the close working relationship maintained between the Public Health Service and State and local industrial hygiene units. Forty State units, in addition to local units, were carrying on this work by July 1946, with the financial assistance of Public Health Service grants-in-aid. During the year, four States passed new occupational compensation laws, bringing to 33 the total of States with such laws. Several other States have taken steps in the further development of industrial hygiene activities.

Industrial reconversion and the introduction of new industrial processes presented many problems, and personnel shortages were acute.

Control of Communicable Diseases. Release from wartime demands for protection of concentrations of military and civilian war-industry personnel permitted the Service to redirect its efforts in malaria control to a more permanent peacetime attack on the constant foci of malaria infection. Integrated with this program was work in the control of various diseases of tropical origin to which our servicemen were exposed overseas. The work is carried on by the Communicable Disease Center established in Atlanta, Georgia, in July 1946, to succeed the Office of Malaria Control in War Areas. State and local participation in these programs increased as personnel and funds became available. One example is the fact that State and local units have borne 62 percent of the cost of typhus control work.

A training center in communicable disease control was established in Savannah, Georgia, to provide public health internships and laboratory training for health department personnel, as well as in-service training for personnel of the Public Health Service.

Cancer Research and Treatment. The release of scientists from war work accelerated cancer research. In addition to studies in progress at the National Cancer Institute, a unit of Public Health Service, further research was made possible through 42 grants-in-aid allocated to various institutions in June 1946. Forty-seven loans of radium to hospitals for cancer treatment were in effect. Increasing numbers of physicians were trained in the diagnosis and treatment of cancer, and $2,500,000 was made available for cancer control grants-in-aid to the States in the fiscal year 1947—the first funds to be identified for this purpose. A national survey of cancer facilities and services was completed and published by the National Advisory Cancer Council.

General Research. Grant-in-aid funds once more became available for research on a variety of peacetime health problems. In the first six months of 1946, 67 grants were approved. A total of 129, involving 71 universities in 26 States, had been recommended for the fiscal year 1947. These were in addition to grants made for cancer research.

At the National Institute of Health, a unit of the Service, research continued in wide fields of medical science. In the year ending June 30, 1946, 392 drugs were tested for anti-malarial action, some of them proving to be from 32 to 128 times as active as quinine. This study was part of a program undertaken in cooperation with the Committee of Medical Research of the Office of Scientific Research and Development. The combination of an antibiotic and a sulfone was found more effective in experimental tuberculosis than the same drugs given singly. Important studies were concerned with a mumps vaccine, Q fever, and other rickettsial diseases; homologous serum jaundice; improvement of the production of vaccines for yellow fever, typhus, and Rocky Mountain spotted fever;

dysentery; narcotics; nutrition; tropical diseases; diseases of old age; and the biological effects of neutron bombardment from the cyclotron.

Demonstration Projects. The value of fluorides in the reduction of tooth decay was a demonstration study project which has been under way for three years. Results obtained through the year indicated that the application of fluorides to the teeth of children reduced the occurrence of cavities by more than one-third.

During the year other demonstrations had begun: to demonstrate a program of dental care for school children; to study the extent of malnutrition and methods for detecting it; to develop methods for the early diagnosis of heart disease on a mass survey basis; and to demonstrate the control of some 40 animal diseases which can be transmitted to man. A demonstration of the early diagnosis and control of diabetes was being developed.

Nursing Activities. Civilian hospitals and health agencies suffered an acute shortage of nursing personnel during the year, in spite of the demobilization of nurses from the armed forces. The Public Health Service had assisted in recruitment activities, and also had continued the training of students already enrolled in the Cadet Nurse Corps before the end of the war.

Medical Services to Beneficiaries. Medical services of the Public Health Service did not decline appreciably, due in part to a tendency of Coast Guardsmen, merchant seamen, and other beneficiaries of Public Health Service to seek treatment which had been postponed during the war

An extended program of physical medicine and rehabilitation was inaugurated in the Public Health Service Marine hospitals, in order to make fullest use of new techniques which had been developed in this field. Progress was made in developing the post-graduate training program in these hospitals. Ten were approved for residencies in general surgery, and four for other specialties. There were studies of streptomycin and of improved methods in the treatment of leprosy.

Foreign Quarantine Measures. While grave health hazards, including cholera and a virulent form of smallpox, prevailed in many areas abroad, the United States kept virtually free of quarantinable diseases. At the request of the Department of State, the Public Health Service resumed the practice of assigning medical officers to the U.S. consulates overseas, to examine prospective immigrants before their departure for this country.

During the year, Foreign Quarantine Regulations were revised, giving particular attention to the problems arising from the expansion of rapid air and sea transportation. Quarantine services were provided at newly established airports of entry in the interior regions of the nation, and steps were taken to deal with the quarantine problem of emergency landings of incoming aircraft at other fields and landing strips.

Sanitary Engineering Program. Public Health's program of environmental sanitation provided another barrier against the importation of disease and its interstate spread. Plans for new ships were reviewed and operating vessels inspected to insure proper sanitation and ratproofing of America's merchant fleet. Interstate land and air carriers were under supervision to safeguard the water, milk, and food served to travelers. Advisory assistance was rendered to certain other Federal agencies on sanitation problems. State and local health departments were also aided in the promotion of the sanitary control of water, milk, frozen desserts, shellfish, food establishments, sewage, and refuse disposal, and housing. Surveys were conducted of the Nation's need for sanitation facilities, and of disease outbreaks traceable to insanitary environment. The research station continued to render service to States in the solution of their problems of water supply, sewage disposal, and stream pollution abatement techniques.

Disease and Death Rates. Although above average incidence was recorded for three important communicable diseases during 1945, the general health of the Nation remained good. The outbreak of influenza which began in November and continued through February appeared to be less severe than that of two years previous to that time. State Health officers reported a total of 486,345 cases between mid-November and mid-February, as compared with 620,052 for the corresponding period in 1943–44.

Diphtheria rose to 18,606 cases in this country during 1945, as compared with 14,122 cases in 1944. Preliminary reports also indicated an accompanying increase in diphtheria mortality.

For the third consecutive year, poliomyelitis reached epidemic proportions in 1945, with 13,145 cases reported. Incidence for 1944 was 19,029, and for 1943, 12,449. Reports so far received for 1946 showed this to be another year of unusual incidence.

Smallpox introduced from the Orient occurred during the 1945–46 period in the San Francisco and Seattle areas. From the appearance of the first case in San Francisco on December 29, the outbreak resulted in 13 cases and no deaths in California, before the last case was reported on March 27. In Seattle the first case appeared on February 5, the last on May 24, with a reported total of 68 cases and 20 deaths in the State of Washington.

In a majority of the States, reports of malaria cases originating within the United States showed the continuing decline observed since 1935.

The provisional rate of death from all causes in 1945 was 10.6 per 1,000 population (exclusive of the armed forces overseas), the same as the rate for 1944. During the first five months of 1946, the provisional death rate was 10.9, as compared with 10.8 for the same period in 1945.

National Office of Vital Statistics. The Vital Statistics Division was transferred from the Bureau of the Census, Department of Commerce, to the U.S. Public Health Service, Federal Security Agency, under the President's Reorganization Plan No. 2 of 1946, which became effective on July 16, 1946. It is designated as the National Office of Vital Statistics. Thus the Public Health Service had chief responsibility for collection and publication of national vital statistics. These included statistics on the incidence and prevalence of disease, as well as births, stillbirths, deaths and causes of deaths, and on marriages and divorces.

THOMAS PARRAN.

PUBLIC ROADS ADMINISTRATION (PRA). An agency of the U.S. Government under the jurisdiction of the Federal Works Agency. It normally administers Federal-aid funds and emergency appropriations for road construction, cooperating with State highway departments. It cooperates with the Department of Agriculture on forest roads and supervises the construction of national park roads.

The Federal-Aid Highway Act of December 20, 1944, authorized the use of $500,000,000 for needed highway improvements and to provide employment during the first 3 postwar years. A National Interstate Highway System to connect metro-

politan areas and industrial centers and to serve the national defense was designated. Other plans included the development of secondary road systems in the various states and the modernization of various sections of the Federal-Aid system.

The organization is cooperating with the countries of Central America in closing gaps in the Inter-American Highway between the southern border of Mexico and the Panama Canal.

Commissioner in 1946. Thomas H. MacDonald. See BRIDGES; ROADS.

PUERTO RICO. A West Indian island, forming a Territory of the United States; acquired from Spain through the Treaty of Paris, 1898. The adjacent islands of Vieques, Mona, and Culebra are included in its jurisdiction. The area of Puerto Rico is approximately 3,435 square miles.

Population. As of July 1, 1944, it was estimated at 2,037,255 as compared with 1,869,255 in 1940. During the 1940 census, dwellers in places of 2,500 or more numbered 566,357 and the rural population 1,302,898. The territory had 544.2 inhabitants to the square mile—an exceptional density for an area dependent mainly on agriculture. Chief cities: San Juan (capital) 169,247 inhabitants, Ponce 65,182, Mayaguez 50,376. Seventy-six percent of the people are native-born whites and the remaining 24 percent are for the most part Negroes and Mulattoes. During 1943 there were 77,304 births and 29,019 deaths.

Education. Out of more than 700,000 children of school age, only 309,595 were enrolled in the public schools during the fiscal year 1944. There were 7,088 field personnel and teaching positions in the Puerto Rican School System. The University of Puerto Rico located at Rio Piedras, ten miles from San Juan, had 6,060 students in 1943–44.

The Economy. The island is predominantly agricultural, with about 825,000 acres under cultivation out of a total area of some 2,000,000 acres. The two leading export products are sugar and tobacco followed by fruits and coffee. Lack of shipping space has curtailed exports of fruits and coffee. Shipments of domestic and foreign merchandise from the United States to Puerto Rico in 1943 and 1944 amounted to approximately $87,000,000 and $119,000,000 while shipments from Puerto Rico to the United States amounted to $99,000,000 and $123,000,000, respectively.

Sugar shipments from Puerto Rico accounted for $45,000,000 and $53,000,000 while rum shipments accounted for $24,000,000 in both years, and tobacco, $12,000,000. In 1943–1944 there were 723,611 short tons of sugar produced, 15,000 short tons of tobacco and 11,000 short tons of coffee

Needlework is the largest industry of the island not associated with agriculture and during 1943-44 exports totaled approximately $14,500,000.

Government. Under the Organic Act that was passed by the U.S. Congress in 1917 and later amended, Puerto Rico has the status of an organized territory of the United States. Its citizens are U.S. citizens. The executive power of the Territorial Government is vested in a Governor (Jesus T. Pinero) who is appointed for an indefinite term by the President of the United States, subject to confirmation by the U.S. Senate. The legislative power is vested in a Legislature of two houses which is elected by popular vote for a four-year term. In addition, there is a Resident Commissioner to the United States who is elected by the popular vote for a four-year term.

Events, 1946. Politically, the year opened on a promising theme for Puerto Rico. On the first day of the year, the American Civil Liberties Union urged action on the part of the United States that would lead to self-determination for Puerto Rico. President Truman, in his annual State of the Union message to Congress on January 22, requested that means be provided whereby Puerto Ricans could select their own form of government and determine their ultimate status with respect to the United States.

Two bills passed by the Insular Legislature, which would give the Island voice in selecting its next Governor and authorize a plebiscite to determine the Islands' permanent political status in relation with the United States were vetoed on March 2 by Governor Rexford G. Tugwell. Provisions of the two bills were: 1. A poll among qualified voters, on or before July 4, 1946, in which each of the Islands' political parties would submit the names of one candidate—either continental or Puerto Rican—for Governor. The candidate winning the poll would be "recommended" to President Truman for appointment as Governor; 2. A plebiscite on or before July 4, which Puerto Ricans would make a choice of independence, statehood or dominion status for the Island.

Governor Tugwell's objections were based on his feelings that the first bill interfered with the power of appointment of the President of the United States and the second bill conflicted with the United States Congress and jeopardized congressional authority for an official plebiscite

Passage of the two bills over the veto could be accomplished by a two-thirds majority, after which the bills would go directly to the President of the United States. Puerto Rican Senate President Luis Marin urged passage of the bills and the Insular Legislature overrode the veto by a vote of 41 to 4 on March 4. In the two previous instances that the Senate rejected a veto since 1898, the President has upheld the Governor.

After identical measures for a Puerto Rican referendum on political status were submitted on March 28 in the United States House and Senate, the United States Tariff Commission reported that the Island could approach self-support only if 1,000,000 people emigrated and a sharp diminution occurred in the birth rate of those remaining. Without aid the Island could not support its current population of more than 2,000,000, which was increasing at the rate of 100 a day.

Since 1898, the date of the Island's cession by Spain, the Commission estimated that the Puerto Ricans have benefited to the extent of $580,000,000 in direct federal disbursements, expenditures and remittances, $82,000,000 in loans from federal agencies and $167,000,000 in military expenditures, mostly between 1941 and 1944. In addition the Island was aided by trade benefits resulting from duty-free access to mainland markets. In April a Puerto Rican legislative delegation arrived in Washington with the proposal for a plebiscite which also provided for economic guarantees.

Governor Tugwell resigned as Governor on June 30 after giving President Truman three months notice. The Puerto Rican Legislature sent a petition to President Truman urging the appointment of Jesus T. Pinero, Puerto Rican Resident Commissioner in Washington, to the vacant post.

On July 25 President Truman appointed Pinero, leader of the Popular Democratic Party, to the Governorship. This marked the first time that a Puerto Rican-born citizen had been selected for the office. In the inaugural ceremonies held on September 3, Governor Pinero asserted that the basic pattern of the Tugwell administration met with his

unqualified approval and promised efforts to enable Puerto Ricans to elect their own chief executive.

After re-passing the Language Bill over Governor Tugwell's veto, the Insular Legislature found their attempt to provide instruction of school subjects in Spanish vetoed by President Truman on October 26. The proposed bill was aimed at reversing the prevailing practise of teaching school in English and including Spanish as a subject in the curriculum. In his veto message President Truman stressed the political implications of continuing the use of English as the medium of instruction. Six thousand university students were joined by several hundred high school and intermediate school pupils on November 8 in a one-day protest strike against President Truman's veto.

The maritime strike that gripped United States ports in the late summer created a crisis in Puerto Rico's economy and revealed the Island's dependence on the United States. On October 19 Governor Pinero appealed to the maritime union strike leaders to permit emergency shipments of food. By October 27 the primary staple food, rice, had decreased to one week's supply, while beans, butter, meat and flour were practically exhausted. The development of a black market forced rice to rise from 9 cents to 25 cents a pound and butter was sold as high as $2 a pound. After the strike ended in early November, Governor Pinero announced that controls would be maintained on a limited number of food items, especially rice which would be strictly rationed.

Professor Manuel Villaronga was appointed Commissioner of Education for Puerto Rico in early December.

PULITZER PRIZES. A series of annual awards established in 1915 by the will of Joseph Pulitzer, publisher of the *New York World*. On May 6, 1946, the following awards were made by the trustees of Columbia University on the recommendation of the Advisory Board of the Graduate School of Journalism:

Prizes in Journalism: (1) For the most distinguished and meritorious public service rendered by an American newspaper, a gold medal costing $500: to *The Scranton Times* (Pennsylvania) for provoking the resignation and later indictment of United States District Court Judge Albert W. Johnson of the Middle District of Pennsylvania by a fifteen-year investigation of local judicial practices. (2) For distinguished correspondence, $500: to Arnaldo Cortesi of *The New York Times* for his dispatches from Buenos Aires. (3) For distinguished telegraphic reporting on national affairs, $500: to Edward A. Harris of *The St. Louis Post-Dispatch* for his articles on the tidewater oil situation, which contributed to the opposition of Edwin A. Pauley as Under-Secretary of the Navy. (4) For distinguished telegraphic reporting on international affairs, $500: to Homer Bigart of *The New York Herald Tribune* for his war correspondence from the Pacific theatre. (5) For a distinguished example of a reporter's work, $500: to William L. Laurence of *The New York Times* for his eye-witness account of the atom-bombing of Nagasaki and his subsequent articles on the development of the atomic bomb. (6) For distinguished editorial writing, $500: to Hodding Carter of *The Delta Democrat-Times* of Greenville, Mississippi, for a series of editorials on the subject of racial, religious, and economic intolerance. (7) For distinguished work as a cartoonist, $500: to Bruce Russell of *The Los Angeles Times* for a cartoon entitled "Time to Bridge That Gulch." The award in the field of news photography was omitted.

Prizes in Letters: (1) For an original American play, performed in New York, preferably dealing with American life, $500: to Russel Crouse and Howard Lindsay for *State of the Union*, produced by Leland Hayward. (2) For a distinguished work on American history, $500: to Arthur M. Schlesinger, Jr., for *The Age of Jackson*. (3) For a distinguished American biography, $500: to Linnie Marsh Wolfe for *Son of the Wilderness*, the life of John Muir. This award was posthumous, as Mrs. Wolfe died September 15, 1945.

No award was given in the field of fiction or poetry.

Prize in Music: For a distinguished musical composition, $500: to Leo Sowerby, for *The Canticle of Spring* commissioned by the Alice M. Ditson Fund and first performed by the Schola Cantorum in New York City in April.

Annual Scholarship: To an art student in America certified by the American Academy of Design, $1,500: to Iris Maraghiotti of Ardsley and Fort Hill Roads, Scarsdale, New York.

RACING. Any review of racing must be written in figures and the American version of the so-called sport of kings, which had touched almost unbelievable heights in 1945, rocketed right into the stratosphere last year. Attendance for all the nation's tracks soared from 18,900,000 to a new all-time high of 25,000,000 and pari-mutuel betting zoomed from the record $1,413,000,000 of the previous campaign to $1,760,000,000 in 1946

The over-all financial gain was made despite a slight falling off in the daily average for the big New York tracks because of an additional 5 percent tax the City of New York slapped on wagers The bettors objected vehemently to the levy, but the city's fathers remained firm and the added tax dropped a cool $14,000,000 into Father Knickerbocker's till.

Assault, a little horse with a stout heart, provided numerous thrills for turf followers with a series of extraordinary feats during the campaign. The Texas-bred chestnut son of Bold Venture-Igual, owned by the King Ranch, started the year winning six of seven outings, including a sweep of the famous triple crown, faded in midsummer with a kidney ailment that caused him to drop six straight races, then returned in the Fall to take the Pimlico Special and Westchester Handicap and clinch honors as the horse of the year.

His earnings as a 3-year-old aggregated $424,195, a record for one season, while his total of $441,445 for two years of campaigning put him third on the list of all-time money winners.

Assault's greatest triumph came in the seventy-second running of the Kentucky Derby just ten years after his sire, Bold Venture, had turned the trick in the blue ribbon classic of turfdom. A record American race crowd of 100,000 looked on as the King Ranch star came winging down the stretch to defeat Spy Song, the early pace-maker, by eight lengths. Warren Mehrtens piloted Assault in his victory which was worth $96,400, highest award in the history of the Derby that goes back to 1875.

With Mehrtens again in the saddle, Assault raced to added glory in the Preakness before a record crowd of 42,370. Assault was hard-pressed to take the roses at Pimlico, standing off a stirring challenge by Lord Boswell to win by a neck. Then the King Ranch star added the third jewel to the mythical triple crown by winning the Belmont Stakes, young Mehrtens again having the mount.

Other notables during the long campaign were the Calumet Farm's 5-year-old gelding Armed, champion of the handicap division; Mrs. Ethel D. Jacobs' Stymie, who ran his earnings to $516,285, only one handicap purse short of Whirlaway's supreme total of $561,161; George D. Widener's Lucky Draw, who cracked six track marks; C. V. Whitney's First Flight, leading juvenile; the King Ranch's Bridal Flower; and Louis B. Mayer's Honeymoon.

The Calumet Farm was the leading money-winning stable, while Ben Jones topped the trainers in earnings and William Molter was first in number of winners saddled. The veteran Ted Atkinson, who booted home 233 winners, was the country's No. 1 jockey of the year.

Harness racing also enjoyed its greatest twelve months in history with 1,200 meetings sanctioned by the United States Trotting Association and more than $100,000,000 wagered through the pari-mutuels. The sessions at Roosevelt Park in Westbury, Long Island, New York, accounted for about half the total bet on the trotters and pacers.

The historic Hambletonian was won by Chestertown; Kaola captured the Western Grand Trot and Blue Again took the Western Grand Pace. Despite Chestertown's triumph in the old classic at Goshen, New York, Victory Song, with a mile clocking of 1:59¼, generally was accepted as the outstanding 3-year-old trotter of the year.

THOMAS V. HANEY.

RADIO BROADCASTING. The radio industry during 1946 completed its first year of reconversion from war service back to a peacetime basis. The four principal national networks, the National Broadcasting Company, Columbia Broadcasting System, American Broadcasting Company, and the Mutual Broadcasting System, maintained their long-established high standards of technical and program performance despite rising costs in talent, office, field, and engineering help.

The development of television broadcasting was rapid in the final months of the year after a rather slow start. Black and white television programs, notably NBC's presentation of the opening of the United Nations Assembly, the Louis-Conn fight, Columbia's *Sports Parade* broadcasts, and the Brooklyn Dodger baseball games, were among the features shown by the new art and industry and disclosed its infinite possibilities. Production of television receivers must be increased enormously in the months ahead to satisfy the public demand. The spectacular development of all-electronic simultaneous color television by the Radio Corporation of America in 1946 includes an adaptor which will enable black and white receivers to register an image even when it is transmitted in color.

During the year a considerable number of new AM Stations were licensed by the F.C.C. The growing number of FM Stations and in the near future those that may specialize in television, will increase competition among broadcasters. There was a healthy growth of station-affiliation with networks.

The *Welcome Home Auditions*, set up by NBC as a war project to give men and women veterans the opportunity to audition in music, drama, and announcing, concluded its operations as a separate unit on its second anniversary, October 9, 1946. Almost 16,000 veterans were interviewed, and more than 8,000 auditioned. Twenty-three percent of those who passed the auditions were given employment in some phase of radio.

The tenth American Exhibition of Educational Radio Programs sponsored by Ohio State University's Institute for Education by Radio gave NBC three firsts and three honorable mentions.

The Columbia Workshop, a proving ground for new talent, ideas and techniques, returned to the air during 1946. A special CBS Documentary Unit, devoted exclusively to the production of programs dealing with major domestic and international issues and involving extraordinary research and preparation, was established during the year.

To keep the public abreast of contemporary events, CBS continued to maintain some 30 reporters and analysts at home and abroad.

The American Broadcasting Company network made radio history when on four consecutive evenings, men and women alternated in reading the powerful and dramatic text of John Hersey's "Hiroshima." This, as is well known, is the account, first published in *The New Yorker*, of the effect of the atom bomb on six persons who lived to tell about it.

The Mutual Broadcasting Company reported that it had devoted 5,827 hours to broadcasting for the year 1946. Musical programs led with a 36.3 percent of the full number of hours of broadcast time. Programs of a public service nature, whether sustaining or commercial, consumed 31 percent of the total broadcast time of the company.

Almost 34 million families own radios in the United States and the audience reaction to American radio is, for the most part, one of pleasure and satisfaction. In the past year there has been criticism of the "commercialism" of American broadcasting. The criticism, in some cases, would appear to have been stimulated by pressure groups and groups with a particular ax to grind.

In March, the Federal Communications Commission announced a new set of criteria by which the fitness of broadcasters to operate stations would be judged by the Commission when their licenses came up for renewal. This document, entitled *Public Service Responsibility of Broadcast Licensees*, became popularly known as the *Blue Book* and set the pattern for most of the criticism of radio.

The National Opinion Research Center of the University of Denver, under the auspices of the National Association of Broadcasters, conducted a survey in 1946. This survey is considered the most important effort in radio's history to calibrate the people's reaction to American broadcasting. The report was analyzed and interpreted by the Bureau of Applied Social Research, Columbia University, under the direction of Dr. Paul F. Lazarsfeld. Entitled *The People Look at Radio*, the 151-page volume disclosed that the public likes American radio, trusts it and places more faith in it than in newspapers or motion pictures. The survey pointed out radio's weaknesses, as listed by listeners, but concluded that radio's critics represent a minority.

There is evidence that the industry will continue the forward progress in 1947 that has characterized every year of its 26-year history.

NILES TRAMMELL.

RAILROAD RETIREMENT BOARD. An independent executive agency of the U.S. Government which administers a retirement system and an employment service system for railroad employees. For 1946 activities, see RAILWAYS. Chairman: William J. Kennedy.

RAILWAYS. The reconversion problem of the railways was nearly as difficult as that of the builder

of motor cars. While it is true that General Motors had to turn from making tanks and air plane engines to making Cadillacs and the Railways had merely to continue to transport freight and passengers the character and channels of peacetime traffic differed as much from wartime traffic as motor cars from tanks. The transportation of wheat from the Dakotas to the mills was radically different from moving war supplies from California to the Atlantic seaboard.

But reconversion, difficult as it was, seemed simple as compared with the rehabilitation problem cleared up by the railways in 1946.

There was not only the slack of the war years to be taken up. Maintenance of track, bridges, cars and locomotives had been inadequate since 1929. Seventeen years of under-maintenance is enough to put the best railway out of business. Lack of money was the cause of ten years paltry upkeep, lack of men and material in the following seven years left a poorly ballasted track, laid with badly worn rail over which to move worn-out cars.

However in 1946 there was not an unusually large number of accidents because enginemen and operating officers went beyond the line of duty to continue safe train movement at scheduled speeds. Thus enginemen whose duty it was merely to obey speed restrictions risked their jobs and often their lives in an effort to carry freight and passengers at what their individual judgments told them were safe speeds under conditions of the moment. It was a frame of mind that officers actually in charge of train movement had been trying to bring about for years.

Operating officers after spending a full day in their offices spent additional time suggesting and supervising makeshift repairs both to track and equipment. Even on roads where work was strictly separated by departments—the so-called departmental system of administration, like that on the New York Central—theories were followed in theory only. A European railway officer found the freedom from accidents under these conditions utterly inexplicable.

The fact that the work was not prescribed makes the compiling of figures impossible. That a vast amount of such work went on, however, is not guesswork. Individual accounts of what was done come from too many different sources. As for maintenance of way: In 1944 there were 144 tie renewals per mile, in 1945 there were 132. The comparatively small number of accidents in 1946 could be explained only by the temporary suspension of the law of chance or by extraordinary work on the part of enginemen and operating officers.

Early in 1946 a careful study was made of the freight car situation and it was estimated that 80,000 cars, divided between box, hopper, and gondola, ought to be taken out of service. This number represented less than 20 percent of these types of cars that were over 25 years old!

It was estimated (by the Railway Age) that the situation as regards passenger cars was no better than that in respect to freight cars.

As for motive power the case was not so bad. On May 1, 1946 of the total owned, 76 percent were in service, 15 percent were unserviceable and 8.5 percent were stored in serviceable condition. These were the reported figures. What is not contained in the figures is that for *profitable* operation more than half of all the locomotives owned are twenty years old, which means in the opinion of the great majority of operating officers that they can not be operated profitably in competition with the locomotives that are being built today.

Wage Disputes. On May 17 the President of the United States by executive order took "possession and control" of the railways of the continental United States They were "taken and assumed through the director [J. Monroe Johnson] of the Office of Defense Transportation" who in turn appointed Charles H. Buford federal manager of the properties. Mr. Buford has been Executive Vice President of the Chicago, Milwaukee, St. Paul, and Pacific Railway and during the war was Vice President of the Association of American Railroads in charge of its Operations and Maintenance departments.

The order was signed in the presence of A. F. Whitney, President of the Brotherhood of Railroad Trainmen, and of Stanley Johnston, Grand Chief Engineer of the Brotherhood of Locomotive Engineers, who were at the White House to report on the failure of their latest conference with railway managers in regard to a strike of the two Brotherhoods for May 18.

The two Brotherhoods (unions) mentioned had originally demanded a 25 percent increase in pay with a minimum raise of $2 50 per basic "day." An emergency "fact-finding" board appointed by the President had reported in favor of a 16 cents-an-hour increase in pay for the members of the B. of R T. and of the B. of L.E. This finding had been rejected by the men and a strike had been called for May 18. The strike order was not rescinded immediately on the signing of the executive order taking control, but the next day five minutes before 4 p.m. (the time set for the walk out) President Truman announced that Whitney of the B. of R.T. and Johnston of the B. of L.E. had consented to postpone the strike until May 23. On that date the strike actually went into effect but was settled two days later by Whitney's and Johnston's accepting President Truman's compromise of a pay rise of 18½ cents per hour effective as from May 22 It is estimated that this will add 700 million dollars to railway wages. The three other operating employee unions and the fifteen nonoperating unions had already accepted the compromise suggested by the President. Acceptance by the B. of R.T. and the B. of L.E came only a few minutes before President Truman went to Congress with a message asking authority "to draft into the armed forces of the United States all workers who are on strike against their Government." Government control of the railways was ended at 4 p.m. May 26.

Capital Expenditures. In the refinancing that had been done so cheaply (as noted in the 1945 YEAR BOOK) provision had been made by many of the railways for extensive capital expenditures in the immediate future. To many railway officers it seemed that the future of that form of transportation depended largely on the wisdom shown in 1946 development. A worn-out plant called for either replacement in kind or replacement with something different, but great caution was shown in actually doing anything. Where it was quite clear that improvement in some competitive service would result, changes were freely made in what had heretofore been considered standard practice. This was extended to freight service as well as passenger service.

The "Pacemaker Freight Service" on the New York Central is a striking example of new methods. The Pacemaker is a scheduled freight train running daily except Sundays and holidays between New York City and Buffalo, New York, a distance of 429 miles, and the time allowed is 10 hours and 50 minutes each way. The average speed is 39

miles an hour to be made despite stops to set off and pick up cars at Albany, Utica, Syracuse, and Rochester.

Even glamor is used in this railway attempt to compete with trucks. Cars and cabooses making up the Pacemaker are painted vermilion on the top portion of their bodies and dark gray on the bottom portions. The train consists of up to 75 cars, each with a capacity of 50,000 pounds. The cars are 40 feet 6 inches long and 9 feet 2 inches wide and 10 feet high inside. They are copper-bearing steel. The tare weight is 46,000 pounds, making a unit when fully loaded of 96,000 pounds. They are equipped with special pneumatic and foundation brakes and trucks cushioned against lateral and vertical shocks. In addition they have Waugmat Twin-Cushion draft gear having yokes pin-connected to the couplers so that the free slack usual in long freight trains is almost entirely eliminated. The attention to detail goes well beyond anything heretofore attempted in freight service on American railways. As an example: the caboose cars which were originally built with vertically beaded wood-sheathing have been covered, ends and sides, with ½ inch five-ply veneer cemented on and secured with drive screws, making them conform with the smooth exteriors of the steel-sheathed box cars.

What is notable in the 1946 developments is that the most striking of them was in freight service. Freight has for at least fifty years been the profitable part of American railway operation and it is in the movement of freight that the steam railway is most clearly superior to other forms of transportation. Passengers, mail, and express are side lines, necessary because the public demands them and because the capital in roadway is so very large that even a slight revenue from passengers and mail often keeps the railway company out of the red. Nevertheless the absolutely indispensable feature is freight. There were clear indications that this fact was recognized in 1946.

Motive Power. Diesel-Electric locomotives have proved themselves more satisfactory than steam engines as motive power for both freight and passenger trains but now the gas-turbine is receiving consideration because the operation of a 2,200 h.p. unit in Europe has shown economies as compared with what it is estimated a Diesel-Electric could do. The gas-turbine, built in 1941, was in use until the fall of 1945 on the Swiss Federal Railways and was then put in service in France on the run of 175 miles from Basle to Chaumont making a round trip a day. It is estimated that in the hauling of a seven-car passenger train the saving, as compared with a Diesel-Electric, is $10,000 a year and would be greater with a longer, heavier train. The unit which the builders, Brown, Boveri and Co., suggest for American railways weighs 338,000 pounds, develops 2,500 h.p. and has a tractive force on starting of 55,000 lb. Its maximum speed is 90 miles an hour.

For switching service nothing yet built has proved as satisfactory as the Diesel-Electric. It is still claimed that in road service where grades are heavy and a large amount of traffic is carried electrification will give the most satisfactory service and the cheapest over a ten-year period.

Stations. There has been a quite bitter feeling heretofore against railways in rural regions because of the great disparity between stations in small towns and the monumental stations in the large cities. In building the station at Prince, West Virginia, the Chesapeake and Ohio Railway tried something unique. The station was opened June 26. The Prince station is only 125 feet long and 22 feet wide but down to the smallest detail it is fastidiously handsome. For instance the waiting room which is 55 feet by 22 feet is 17 feet high with a large part of the wall space taken up by plate glass windows. The ceiling is sound-absorbing, the six wooden benches are streamlined and have plastic-fabric back cushions. There is an electrically-cooled drinking fountain. There is a ladies' lounge in this small town station! There is radiant heating and ultra-violet ray lamps to improve sanitary conditions.

In sharpest contrast to this small station built in the United States is the experimental small-station design which has been developed by the London, Midland and Scottish for use in England. The underlying motive in the design of the American station was to get something that was pleasing to the users of a local railway station. The underlying motive in the English station was to get something that could be quickly built and could be maintained with a minimum of labor. The English station is factory-made from its foundation to its roof. The foundation consists of pre-cast concrete units which include heating and drainage pipes. On the foundation are erected steel columns, which support continuous roof and canopy beams. The roof consists of a series of shallow timber units which are very light and the under side forms a smooth ceiling ready for painting. The top of the roof is covered with bituminous felt in built-up form.

The building can be insulated by the insertion of a glass silk quilt in the space between the outer enameled plates and the inner wood lining. Although designed for speed in erection the building has a very pleasing appearance.

Through Coast-to-Coast Passenger Service. Various reasons have been suggested as to why there has heretofore been no through-Chicago passenger service. Among the more plausible reasons is the unwillingness of any eastern road to tie itself up in an exclusive alliance with one of the western roads. It was thought to be an advantage to be free to bargain for an interchange of passenger as well as freight traffic. At long last, on March 31, 1946, coast-to-coast sleeping car service was begun with an all room sleeping car leaving New York on the New York Central's Twentieth Century Limited and transferred to the Atchison, Topeka and Santa Fe's *Chief*. Thus a passenger could leave New York at 5:30 Monday afternoon, pass through Chicago on Tuesday morning and arrive at Los Angeles at 11:50 a.m. on Thursday all without changing cars. The coast-to-coast trip takes more than 69 hours.

Also on March 31 the Pennsylvania Railroad in connection with the A.T. and S.F. had a through car to Los Angeles and in connection with the Chicago and Northwestern and the Union Pacific a second car to Los Angeles and in addition a car to San Francisco via the Chicago and Northwestern, the Union Pacific and the Southern Pacific. The cars to both Los Angeles and San Francisco run daily each way.

In June a through Pullman car service between New York and Los Angeles was established by the Southern Pacific in connection with the Chicago, Rock Island and Pacific, and the Pennsylvania Railroad.

On March 31 the Baltimore and Ohio in connection with the Atchison, Topeka and Santa Fe began a through Pullman car (bed-roomette) service daily between Washington, D.C., and Los Angeles, Cal.

About that time President White of the Baltimore and Ohio was quoted as saying that negotiations were going on for a through sleeping car to points in the southwest via St. Louis.

Implied in the establishment of these services is the thought, in connection with airplane competition for passengers, that railways can increase the comfort of travel to more advantage than the speed of travel. While this thought is most dramatically shown by the cars through St. Louis and Chicago it was expressed in a great many other ways. Heretofore advertising had been relied on to "sell" individual railway's service to the public. Now there is a concerted effort being made to render the railways' services enjoyable. Air conditioning and adjustable seats in day coaches were not new but the extent of their use was greatly broadened.

Railroad Retirement Board. Making railway work attractive to capable men is even more fundamental to satisfactory service than making railway passenger transportation attractive to travelers, but the most notable work done in that respect in 1946 was done by a Government board although some individual railway officers worked powerfully towards that end. Since 1936 the Railroad Retirement Board has administered the payment of old age pensions, disability, and death benefits and unemployment allowances. In 1946 amendments were made to the Railroad Retirement and Railroad Unemployment Insurance Acts which increased from 3½ percent to 5¾ percent the tax on earnings, with a like tax on employers' pay rolls. However, to quote the Monthly Review of the Board: "No additional rate of contributions for unemployment insurance is levied on employers since the present rate of 3 percent of taxable pay roll, coupled with the reserve in the railroad unemployment insurance account, is considered sufficient to meet all costs arising from the amended Railroad Unemployment Insurance Act for an indefinite period in the future."

The amendments institute the payment of benefits for sickness on a like basis to those for unemployment. Rhode Island and California have had workers' sickness-benefit laws, but this one for railway employees is the first federal law of its kind Under the old law, benefits for those earning $2,000 to $2,500 were at the rate of $4 a day. This has been raised to $4.50 a day for those earning $2,000 and $5 a day for those earning $2,500. Maternity is included. The Government benefits are in addition to any benefits the employee may be receiving from fraternal or group insurance but not from Government under the Social Security Act. The payments to railway employees are about 25 percent higher than they would receive under the Federal Social Security Act. The amendments extend benefits from 100 to 130 days.

Rates. On December 6 the Interstate Commerce Commission gave its approval for a general increase in freight rates by rail and water carriers. It was estimated by the *New York Times* that the increase averaged 17.6 percent. The case had been before the I.C.C. since April 15 when the railways had asked for approval of an increase of freight rates of 25 percent. On June 20 the Commission gave its approval to an "emergency" increase which averaged 6.5 percent. The decision in December superseded the one in June. That is, the increase was not in addition to that allowed in June. Back in 1942 an increase of 10 percent had been allowed on passenger fares limited to six months after the formal end of the war. In December this increase was extended indefinitely. The figures given as averages are mere approximations when it comes to making an estimate of how much additional revenue will be brought in. As to just how much freight will move under a given rate only time will show. About all that can be said is that the railways have proved to the satisfaction of the Interstate Commerce Commission that their wages, cost of materials, and taxes have increased by about a billion since 1939 and the Commission has approved increases in freight rates that, together with the 10 percent increase in passenger fares, will add about a billion dollars to railway revenue.

Financial Standing. Even before the decision had been rendered the standing of the railways as bidders for investment funds had improved greatly. Of course large war earnings helped and the cheap refinancing that had been done in 1945 advertised railway securities. On the day following the I.C.C decision the market price of rail stocks improved some but not sensationally. On December 7 Pennsylvania Railroad stock paying $1.50 per 50-dollar par value share closed on the New York Stock Exchange at 28. At that price the dividend yield is slightly under 5.4 percent per year. On the same day the closing price of American Telephone and Telegraph yielded the buyer slightly over 5.4 percent per year and U.S. Steel common paying 4 percent on 100 dollars par value sold to yield 5.5. In other words the financial standing of one of the soundest railroads compared favorably with U.S. Steel and with the premier public utility.

Reorganization. On August 1 the Seaboard Air Line which had been in receivership since December 1930 was taken over by the reorganized S.A L. Railroad. The set-up of the new company had been approved by the I.C.C. in June and finally 97 percent of old security holders agreed to the plan. This reflected the extent of the confidence in the ability of steam railways to compete successfully with buses and airplanes. The Seaboard Air Line having tractage rights from New York to Richmond, Virginia, and its own line from there to the southern part of Florida is subject to exceptional competition from both buses and airplanes. Its most profitable passenger business is that of well-to-do-people going between New York and Florida winter resorts. Airplane travel has a strong appeal. Its most profitable freight traffic is in fresh fruit and vegetables from Florida to New York, a type of freight for which airplanes are very well fitted. Florida has a comprehensive network of bus lines. It is true that in recent years there has been an unusually large development of pulp, paper, and textile mills along the lines of the S.A.L.; still reorganization has hung fire for sixteen years.

Financial Results. In the first ten months of 1946 the railways in the United States earned a total of $6,332,000,000 comparing with a total of $7,624,000,000 earned in the first ten months of 1945. The comparison is for ten months only because at the time of going to press no reasonably accurate estimate could be made of the earnings and expenses of November and December 1946.

Of the total in 1946 there was earned from passengers, $1,081,000,000, which compares with $1,410,000,000 earned from passengers, in 1945. The comparison for freight is $4,770,000,000 in 1946 and $5,665,000,000 in 1945. The percentage of decrease is greater in passenger earnings because freight earnings in 1946 included some "interim" rate increases that the I.C.C. had granted.

Total operating expenses in the first ten months of 1946 amounted to $5,272,000,000 and to $5,538,-

000,000 in the first ten months of the previous year. Breaking up expenses: $965,000,000 was spent for maintenance of fixed property in 1946 comparing with $1,112,000,000 in 1945. There was $1,221,000,000 spent for maintenance of rolling stock in 1946 comparing with $1,535,000,000 in the first ten months of 1945. Transportation of which the largest items are trainmen's wages and fuel cost, in the first ten months of 1946, $2,649,000,000 and in the first ten months of 1945, $2,500,000,000.

Relevant to expenses is the fact that railway payrolls in 1946 were $4,200,000,000, the greatest in history according to Dr. J. H. Parmelee writing in the *Railway Age*. The average number of men employed on railways was only 1,360,000 in 1946 as compared with 1,420,000 in 1945. The higher payrolls were due to wage increases.

Taxes were, in 1946, well below the war years. They were $483,000,000 as compared with $1,106,000,000 in 1945, and $1,587,000,000 in 1944, as compared with $1,000,000,000 in 1943.

The railways as a whole did a little better than earn enough net to meet their fixed charges in the first ten months of 1946. The final net available for stock in 1946 was $155,000,000 which compares with $473,000,000 in 1945.

Operating Results. The revenue ton miles carried in 1946 was 583,000,000,000 comparing with 681,000,000,000 in 1945. The revenue passenger miles carried in 1946 was 65,000,000,000 comparing with 91,717,000,000 in 1945.

Average train load of revenue freight is often used as a measure of efficient railway operation but a change in character of traffic which is outside the control of the operating department also affects train loading. Iron ore loads are heavier than grain despite anything operating officers can do. In the first ten months of 1946 the average net train load was 1,084 tons. In 1945 it was 1,129 tons. Less than car load freight tonnage (merchandise) increased 1946 as compared with 1945 by 14.2 percent. Ore tonnage decreased 16.6 percent and coal tonnage decreased by 4.5 percent. Ton miles per freight train hour averaged 17,178 in 1946 and 17,482 in 1945.

Towards the very last of 1946 a serious car shortage developed which railway men had been expecting.

The following figures were compiled by *Railway Age*.

Car and Locomotive Orders. There were 57,731 freight cars ordered by railways, for domestic use, in 1946. This compares with 38,255 in 1945. There were 41,752 delivered in 1946 as compared with 43,864 delivered in 1945.

There were 1,930 passenger train cars ordered for domestic use in 1946 comparing with 2,998 ordered in 1945. There were delivered 1,331 in 1946 and 856 in 1945

There were 919 locomotives ordered in 1946 and 845 ordered in 1945. Of those ordered in 1946 55 were steam, 856 were Diesel and 8 were electric. Of those ordered in the previous year 148 were steam, 691 were Diesel and 6 were electric.

There were 690 locomotives built, for domestic use, in 1946 and 935 in 1945

New Lines Built. A total of 68 miles of new first track were completed in 1946, comparing with 65 miles completed the year before. In each of the years 1866 to 1914 more than a thousand miles of first track were built; in 1888 7,066 miles were built.

The longest (!) piece of line built in 1946 was from Floris, Iowa to Centerville, 34.53 miles. It was built by the Chicago, Rock Island and Pacific.

There was much line-revision work and 14 bridges were renewed—the work on five of these costing more than a million dollars each.

There were 423 miles of line abandoned. The longest piece was 68 miles in Wisconsin.

Receiverships. No railways were put in receivers' hands in 1946 but at the end of the year 36,044 miles were in receivers' or trustees' hands. The reorganization of the Seaboard Air Line was commented upon earlier in this article.

Dividends. In May the New York Central omitted the fifty-cents-a-share dividend which had been declared in May in the three previous years. The Southern Pacific increased its annual dividend rate from 3 to 4 percent.

Anti-trust suits brought by the Department of Justice against the Association of American Railroads and The Western Association of Railways are still before the courts. A bill of particulars has been filed by the government and has been answered by the railways.

WILLIAM E. HOOPER.

RAPID TRANSIT. Problems of providing adequate, speedy, efficient and economical means of rapid transit or local transportation in large communities remain to be solved. The discouraging financial factors are in ever-increasing operating expenses, insistent labor demands, and the difficulties in getting increased rates or fares to accord with mounting expenses. In spite of the return to peace conditions the traffic of 1945 continued high. This unexpectedly good record, in place of the predicted drop at the end of restrictions on the production and use of automobiles, is attributed by the American Transit Association to the quick shifting of industry to peace conditions, and to the actual reduced production of automobiles. These conditions carried over into and through 1946.

The total number of passengers carried in 1945 was above all previous records, 23,254,000,000, compared with 23,017,000,000 in 1944. The earning power, however, continued to fall, because of higher operating expenses Although reduced taxation partly offset this loss, the earnings were 8 percent below the 1944 figure The passenger record would have been higher, but for the numerous strikes and interruptions to traffic.

Many transit companies had plans for modernizing and rehabilitation in the postwar period, but these met with delays and difficulties, especially in procuring materials and equipment. Not much has been done in the way of stations and terminals, but there have been plans for off-street terminals for the convenience of passengers and street traffic. Most companies have planned expansion of motor-bus and trolley-bus service, and some of the smaller concerns have proposed conversion of street-railways to bus lines, but street railways still carry the bulk of the traffic. The Chicago street railway system (three companies) has an improvement program calling for the expenditure of $23,000,000. Atlanta, Georgia, proposes conversion of its street-car lines to bus service, with a central terminal station and an outside parking place with transportation to and from the station. Subways are planned in several cities, for improved speed and service and reduced traffic congestion. But in view of the difficulties and cost of construction the outlook for such works is not favorable. However, Chicago has resumed work on its second subway line, from the north side to the business district and then west to the river. This had been halted in 1942.

Total trackage of street-car lines has declined from 40,510 miles in 1926 to 16,480 miles in 1945,

while bus routes have increased from 36,900 to 90,400 miles. However the surface railway lines in 1945 carried 40 percent of the passengers; subway and elevated lines, 12; motor-bus lines, 43, and trolley-bus lines, 5 percent. These figures cover electric street railways, elevated and subway lines, and local bus lines. Not included are taxicabs, suburban railways, sight-seeing buses and school buses.

At the end of 1945, there were 1,253 operating companies, of which 172 were street railway lines (91 urban surface lines, 5 electric subway and elevated lines, and 76 interurban lines). Trolley and motor-bus lines together numbered 1,209. In length of routes, the electric railway lines had 9,212 miles (of which 382 miles were subways or elevated lines); trolley-bus lines, 1,211 miles, and motor-bus lines, 39,500 miles.

Equipment comprised 26,680 surface railway cars, 1,075 elevated and subway cars, 3,716 trolley buses, and 49,670 motor buses. Operating revenue for all lines was $1,380,400,000, but operating expenses amounted to 77.31 percent of revenue. Total number of passengers carried equaled 23,254,000,000, distributed as follows: surface railways, 9,426,000,000; subways and elevated lines, 2,698,000,000; trolley buses, 1,244,000,000; motor buses, 9,986,000,000. Total employees numbered 242,000, for a pay roll of $632,000,000. The riding habit of the public increases directly with population, ranging from 126 revenue rides per capita per annum in cities between 25,000 and 50,000, up to 428 rides per capita in cities of more than a million population.

Municipal rapid-transit service is confined mainly to ownership of subway and elevated lines, which are leased for operation to local companies There are 29 municipally owned systems, operating 1,231 miles of route (or first main track), 2,200 miles of motor-bus lines, and 100 miles of trolley-bus lines. Besides the above, some cities have combined municipal and company ownership. In Boston, a substantial part of the local system is owned either by the city or the State, and the stockholders of the company have a guaranteed return of 5 percent. In Chicago, the Rapid Transit Co. (elevated lines) began operating the State St. municipal subway, 4.83 miles, in October, 1943 In Newark, N.J., the city owns the 4 23-mile subway, for street cars and buses, operated under lease by the Public Service Transport Co. Philadelphia owns 48 miles of the 67-mile subway and elevated lines operated by the Philadelphia Transportation Co. under lease. In Rochester, N.Y., the 9.20-mile subway (with 24 miles of track) is owned by the city and operated by the Rochester Transit Co.; it is separate from the rest of the system, which consists of bus service.

At Montreal, Canada, subways have been proposed, but a less expensive alternative for the relief of traffic congestion is to provide surface expressways having two 2-lane roadways separated by a double-track electric railway. Toronto has plans for a subway system, but meanwhile has built an off-street bus terminal. In Australia, Sydney (New South Wales) expected to begin work in 1946 on a 7-mile extension of the subway system, and Melbourne (Victoria) is planning subways. In South America, Rio de Janeiro (Brazil) plans a municipal subway, and Santiago (Chile) proposes a subway, partly open cut, as traffic is hopelessly congested in a maze of narrow winding streets. Russia is reported as building a subway at Kiev, and a 12-mile extension of the Moscow subway, making a total of 40 miles for Moscow.

Among serious problems in the transit industry are the revision of fares, public relations, financial situations, the labor outlook and traffic congestion. While the public is quick to ask for improvements, which may be costly, it usually opposes increase in fares. The American Transit Association plans research on the relation of fares to service, and on the improvement of local public relations with the transit industry. While the automobile has created and is still promoting the habit of travel, it is thought to have neared its peak as a competitive factor in the handling of local traffic. It is being recognized also that the local traffic system will play a large part in solving the problem of street traffic congestion. Since automobiles average barely two passengers, it is evident that these two occupy a considerable stretch of the traffic lane, as compared with the passengers in a bus or street car. In one city a survey showed that on an average day the traffic entering the business district was classed as follows: 146,900 persons in 85,263 automobiles, and 173,000 persons in 5,129 public transit vehicles.

E. E. RUSSELL TRATMAN.

RECIPROCITY INFORMATION, Committee for. A committee created under the provisions of Section 4 of the Trade Agreements Act of June 12, 1934, which provides that before a trade agreement is concluded with any foreign government interested persons shall have an opportunity to present views to the President or to such an agency as the President may designate. The Committee was created as such an agency, and in 1936 its functions were extended to include receipt of statements with reference to any aspect of the trade agreements program. In 1939 it was placed under the jurisdiction of the Department of State. The agencies and departments represented in the membership have changed from time to time.

RECLAMATION, Bureau of. A bureau of the U.S. Department of the Interior, which conducts multipurpose irrigation projects in 17 western States The work of the Bureau covers production of food and electric energy, furnishing of municipal and industrial water, provision for flood control, river regulation, and aid in the preservation of fish and wildlife.

With 57 projects in operation, construction work was scheduled on 30 more, including the Missouri River Basin Development, authorized by the Flood Control Act of 1944; additional work on Grand Coulee Dam; the Central Valley Project in California; and Lewis Dam. Crops valued at approximately $411,000,000 were produced in 1944 on projects watered by Reclamation systems. Commissioner, 1946: Michael W. Straus.

RECONSTRUCTION FINANCE CORPORATION (RFC). RFC's activities during 1946 fell into three broad categories. They pertained (1) to lending; (2) to liquidating as many RFC-conducted war activities as practicable, while continuing those which could not be terminated without harmful effects on postwar production and employment; and (3) assisting, by the use of RFC's facilities, in the establishment of a sound and enduring postwar economy, with emphasis principally on providing credit aids in cooperation with banks, to small business enterprises and veterans, and on helping to restore American trade with occupied and liberated countries.

Under powers conferred upon it by the RFC Act, approved January 22, 1932, and by subsequent legislation, the Corporation has extended financial assistance to almost every type and size of industrial

and business enterprise, as well as to other Federal agencies, and to State and local agencies.

As of June 30, 1946, RFC loans and authorizations for all purposes amounted to $41,230,936,765.84, of which $1,943,162,824.17 was outstanding.

Lending activities of The RFC Mortgage Company during 1946 included the authorization of loans on income-producing urban real estate, and the extension of loans to finance new construction of the same type. The Company also provided a market for veterans' home loans guaranteed or insured by the Veterans Administration. Another RFC subsidiary, the Federal National Mortgage Association, during 1946 continued to purchase first mortgages insured by the Federal Housing Administration.

The functions of the four wartime subsidiaries of RFC, dissolved on June 30, 1945, were continued by RFC. These former subsidiaries were the Defense Plant Corporation, Defense Supplies Corporation, Metals Reserve Company and Rubber Reserve Company.

tional requirement of 732,000 tons of synthetic rubber during the fiscal year ending June 30, 1947. The rubber program contemplated keeping six plants, costing $142,000,000, in stand-by condition during the fiscal year and eight plants, costing approximately $16,000,000, were expected to be declared surplus for disposal.

Through its subsidiary, U.S. Commercial Company, RFC negotiated agreements with the War Department under which merchandise from Germany and Japan was imported, the objective being, first, to create dollar exchange in those countries in amounts sufficient to help pay for their essential imports, thereby alleviating the burden on American taxpayers defraying the expenses of military occupation, and, second, to foster reestablishment of United States foreign trade.

On June 5, 1946, RFC organized a Small Business Division to deal with credit problems of small business, and to assist small business in buying Government-owned surplus property.

On March 23, 1946, RFC and its subsidiary, War Assets Corporation, since dissolved, trans-

RECONSTRUCTION FINANCE CORPORATION
SUMMARY OF LOAN & PURCHASE ACTIVITIES, FEBRUARY 2, 1932 THROUGH JUNE 30, 1946

	Authorizations	*Disbursements*	*Repayments and Other Reductions*
For benefit of agriculture	$ 2,603,733,430 83	$ 1,452,180,464 11	$ 1,452,000,775 45
To open banks to meet demands of depositors	1,334,880,161 08	1,138,251,619 27	1,127,825,604 83
For distribution to depositors in closed banks	1,422,805,381 24	1,060,157,541 49	1,057,674,109 66
For bank capital (including Export-Import Bank's $176,500,000 and Federal Home Loan Banks' $124,741,000)	1,647,452,669 00	1,471,806,311 56	1,146,679,208 33
For self-liquidating projects (including PWA municipal securities)	1,300,038,798 95	1,082,195,899 18	984,807,409 68
To business enterprises	1,280,911,156 59	503,402,002 49	357,148,567 61
For loans to National Defense	23,148,871,984 06	21,652,639,660 67	21,220,369,140 47[a]
For loan to Great Britain and Northern Ireland	425,000,000 00	390,000,000 00	156,595,975 76
For purchase of stock—National Defense	126,000,001 00	27,000 001 00	21,000,000 00
To drainage, levee and irrigation districts	149,709 448 64	101,108.002 18	80,831,043 99
To railroads (including PWA railroad securities)	1,705,439,535.54	1,052,068,714.70	874,913,140 32
For loans to and capital of mortgage loan companies (including $25,000,000 capital of The RFC Mortgage Company and $11,000,000 capital Federal National Mortgage Association)	912,342,930 95	782,278,484 26	731,469,433 36
For loans to and capital of insurance companies	151,589,750 19	137,843,209 81	106,079,865 03
To building and loan associations (including receivers)	179,989,559 59	140,158,067 90	140,158,067 90
To public school authorities	25,689,050 00	23,257,175 00	23,257,175 00
For catastrophe rehabilitation loans	17,826,818 36	13,523,726 07	12,437,447 89
To State funds for insurance of deposit of public monies	13,087,715 88	13,064,631 18	13,064,631 18
For mining, milling and smelting businesses	20,296,100 00	9,173,409 40	4,318,181 45
For loan to Export-Import Bank	25,000,000 00	25,000,000 00	25,000,000 00
For other purposes	669,057 07	614,813 85	614,813.85
Total—By Directors of the Corporation	$36,491,333,548 97	$31,075,813,734 12	$29,536,244,591.76
Allocations and loans to other governmental agencies and for relief by direction of Congress	4,739,603,216 87	3,900,715,936 51	3,497,122,254.70[b]
Grand Total	$41,230,936,765 84	$34,976,529,670.63	$33,033,366,846 46

[a] Includes $7,650,698,299 91 representing credits arising from the merger of R F C war affiliates with R.F.C under Public Law 109-79th Congress

[b] Includes $2,785,458,704 21 of Corporation's notes canceled pursuant to Act of Congress approved February 24, 1938.

RFC's plant program of rapid but orderly liquidation involved contract termination, close-down, plant protection and maintenance, and declaration of plants and equipment, no longer needed for war work, as surplus and therefore available for sale or lease by War Assets Administration. Of the more than 2,200 projects, for which authorizations aggregating approximately $8,468,000,000 were made, it was expected that the program would be completed on June 30, 1947, except for projects not released by sponsoring agencies. A number of defense supplies programs, including payment of food subsidies, were terminated during 1946. Procurement of some commodities in critical supply, such as quinine, cinchona products, hard fibers, molasses and goatskins, was continued. The purchase was also continued, under the metals program, of certain critically needed metals, principally tin and tin ores and concentrates, copper, lead and antimony. Thirty-seven synthetic rubber plants, costing approximately $506,000,000, were continued in operation to produce an estimated na-

ferred certain personnel and assets to the War Assets Administration which, starting March 25, 1946, succeeded RFC as the disposal agency for approximately 90 percent of all Government-owned property declared surplus.

CHARLES B. HENDERSON.

RED CROSS, American National. Conversion to peacetime activities has characterized all American Red Cross services during 1946. Continuing its work with the armed forces, the organization maintained a reduced staff, about 3,200 to serve overseas troops, while 4,400 were assigned to domestic service. Under a new agreement effective July 1, 1946, all club facilities overseas are Army-sponsored, but professional recreation personnel continues to be furnished by the Red Cross without salary charge to the Army. At the end of the fiscal year, 1946, about 130 on-post and off-post recreation facilities were being operated by Red Cross club workers in the European theater of operations, while 153 recreation centers were in operation in the Far East.

The Mediterranean theater was served by 35 recreation centers, the Pacific Ocean areas were served by 10, and independent stations such as Alaska and the Canal Zone were allotted 26. Appropriations by Red Cross for such recreational programs during the fiscal year 1946–47 amount to $16,272,000.

Approximately 1,350,000 members of Red Cross volunteer Special Services donated more than 120,000,000 hours of service during the past year in the following corps: Administration, Arts and Skills, Canteen, Home Service, Hospital and Recreation, Motor, Production, Staff Assistance, Dietitian's Aide, and Nurse's Aide. The Dietitian's Aide Corps was discontinued June 30, 1946. Camp and Hospital Council Service, which was a wartime service, became on July 1, 1946, a part of the peacetime structure of the Red Cross under the name, Community Service to Camps and Hospitals. Through 52,100 organizations affiliated with this service, 5,000,000 volunteers have given recreational and other services to able-bodied and hospitalized servicemen and veterans.

More than $11,635,000 was spent during 1945–46 on Red Cross chapter assistance to Army and Navy personnel and their dependents. From April 1945 to March 1946, emergency furlough verifications, handled through Home Service departments of chapters, numbered 1,630,000. According to reports of June 30, 1946, approximately 1,700,000 veterans had been given Red Cross assistance at the time of their separation from service. Red Cross field directors serve in 62 Veterans Administration regional offices, 10 branch offices and 79 Veterans Administration hospitals, with a total of more than 800 paid Red Cross workers engaged in Veterans Administration programs. The Red Cross received an average of 30,000 powers of attorney per month during 1946 from veterans, and assisted them in filing applications for benefits and assembling supporting evidence.

In its overseas emergency relief program from July 1, 1945 to June 30, 1946, the American Red Cross made available approximately $50,000,000 worth of chapter-produced clothing, medical and hospital supplies, supplementary food and milk, and automotive equipment. In the period from September 1, 1939 to June 30, 1946, the organization distributed more than $152,000,000 worth of supplies to more than 75 million persons including 27 million children in 49 countries.

Assistance in 271 disasters in 45 states and Alaska was given during 1945–46, when more than 136,000 persons received aid consisting of food, clothing, medical and nursing care, and temporary shelter. Aid also was given in Hawaii to 6,350 victims who survived a tidal wave. Total expenditures for disaster relief at home and in insular possessions was $1,604,985.

More than 337,000 Americans received first aid certificates and 400,000 completed water safety training courses during the past fiscal year. More than 27,000 volunteer instructors are teaching first aid in the United States, and during the year, the First Aid, Water Safety, and Accident Prevention Service had 10,000 mobile first aid units and 2,000 highway first aid stations in operation. Classes are given regularly in home nursing and nutrition.

The American Junior Red Cross during the past year contributed about $1,850,000 worth of educational, health, and recreational supplies to children overseas. At present the membership of Junior Red Cross numbers nearly 20,000,000 young people of school age. Red Cross college units number 187.

Distribution of more than 735,000 units of surplus blood plasma was made during the past year to hospitals throughout the United States, Alaska, Hawaii, and the Philippine Islands. The Red Cross civilian Blood Donor Service, inaugurated as a national project in 1945, is expanding steadily so that free emergency supplies will be continually available.

Basil O'Connor is national chairman of the American Red Cross; the ex-officio president is Harry S. Truman, President of the United States.

REFUGEES. The problem of refugees and displaced persons was under continuous discussion in bodies of the United Nations during 1946; convincing evidence of its urgency as a political, economic, and social question requiring a high degree of international cooperation in its treatment. It was generally accepted that the continued presence in assembly centers in Germany and Austria of 1,000,000 refugees and displaced persons constituted an irritant in the relations of friendly governments and served to delay the restoration of peace and order in Europe.

The great majority of these persons were unwilling to return to their countries of origin, because they could not accept the political changes in their home countries which had resulted from the war. Some undoubtedly were motivated in their reluctance to return by preference for the security, shelter, and food provided in the assembly centers as compared with the hardships of life in the home countries: Poland, Yugoslavia, and the Ukraine.

These countries of origin of the displaced persons in which the destruction caused by the war had been extensive were inclined to question the good faith of their nationals who were unwilling to return home to share the burdens of reconstruction, and suspected them of political opposition to the regimes in power. Concerned with man-power shortages at home they were unwilling to agree that any of their nationals should emigrate as settlers to countries overseas.

In contrast to this point of view, the western occupying authorities in Germany and Austria—the United States, France, and the United Kingdom—were unwilling to force this hard core of nonrepatriables to return to their home countries against their will. These authorities recognized the right of the individuals concerned to a free choice with respect to return and their right to hold political opinions freely and to express them.

This conflict in political ideologies predominated throughout the discussions on the subject in the United Nations. At the meeting of the General Assembly of the United Nations in London in January, 1946, the principle was unanimously adopted that no person who, after receiving information directly from representatives of his country of origin, was unwilling, for valid reasons, to return to his country should be obliged to do so. It was also agreed that such persons should become the concern of such international body as might be established to care for them, and the Economic and Social Council was directed to establish a sub-committee to explore the problem in all of its aspects and to propose the constitution and budget of an international body which might assume responsibility for the problem.

The persons envisaged as the possible concern of the proposed International Refugee Organization were those remaining in Germany, Austria, and Italy of the 8,500,000 United Nations nationals who had been drawn into Central Europe by the Germans as slave laborers or victims of concentration camps during the war. In 1945, some 7,000,000

of these hapless persons had been repatriated to their countries of origin by the Allied military authorities from the western occupied zones of Germany by train, truck, and plane. Many had trekked homeward on foot. This homeward movement which had exceeded all expectations in 1945 had come to a standstill in the winter months of 1945–46.

Although repatriation was encouraged and facilitated by the military authorities and the United Nations Relief and Rehabilitation Administration in the spring and summer of 1946, it became evident in the fall of 1946 that the expected hard core of non-repatriables had finally emerged in terms of 1,000,000 persons who were unwilling to return. These consisted chiefly of 600,000 Poles; 150,000 to 200,000 Baltic nationals—Latvians, Lithuanians, and Estonians—75,000 to 100,000 Yugoslavs; 50,000 Ukrainians, and approximately 200,000 Jewish refugees, mostly Polish Jews, who had left Poland after the cessation of hostilities. These latter included not only those who had survived Nazi persecutions in Poland during the war, but some of the 150,000 Polish Jews who had returned from the Soviet Union to Poland under the Polish-Soviet Agreement with respect to the exchange of populations concluded in Moscow in 1945. They left Poland because of the insecurity which they felt in that country and because of an emotional and religious drive to reach Palestine as their national home.

The Anglo-American Commission of Inquiry which had been established by the British and United States Governments in December, 1945, reported a series of recommendations with respect to Palestine in April, 1946. One of these recommendations was that 100,000 Jewish refugees then housed in displaced persons centers in Germany and Austria should be admitted to Palestine immediately.

The British Government was unwilling to act on this recommendation alone without reference to action on other recommendations of the Commission which had to do with the political and economic reorganization of Palestine. As a consequence, the Polish Jews who had reached Central Europe still found themselves at the end of 1946 awaiting final decisions on Palestine which appeared to be more remote than ever.

There were certain groups of refugees and displaced persons in the Far East which were also envisaged as the concern of the proposed International Refugee Organization. Approximately 15,000 Central European refugees, mostly German and Austrian Jews, had survived the war in Shanghai. The Far East offered no opportunities for them and they earnestly desired emigration to Australia or the western hemisphere or repatriation to Germany or Austria By the end of 1946 some 1,500 had been assisted to join relatives in Australia, and 500 had secured immigration visas to the United States. UNRRA and private relief agencies had assisted to maintain them since the end of the war.

UNRRA also reported progress at the end of the year in the repatriation of over 5,000 overseas Chinese from China to their pre-war domiciles in Burma, Singapore, Siam, and Indo-China. Some 35,000 others remained in China awaiting repatriation to the same areas in 1947. During the year, approximately 100,000 Chinese had returned to Hong Kong by foot.

In Italy, the numbers of refugees and displaced persons had been reduced to approximately 150,000 during 1946 by the demobilization of the Anders Polish Army and the removal of its former members to England. There they were placed as civilians in training camps to prepare for resettlement in overseas countries. The British Government announced in September, 1946, that it would accept responsibility unilaterally for the care and ultimate disposition of this group which, including wives and children, numbered 200,000. The refugees and displaced persons remaining in Italy were predominantly Yugoslavs unwilling to return to Yugoslavia. Included in the total at the end of the year however were approximately 25,000 Polish Jews enroute to Palestine.

The position of the displaced persons in Germany was worsened during the year by the arrival in Germany of over 6,000,000 former German residents of Poland, Czechoslovakia, and Hungary under the terms of the Potsdam Agreement. The occupying authorities in Germany, already concerned with the dislocations of the German population in Germany, were ill prepared to receive this new movement of Germans which added substantial burdens to the German economy and greatly increased the demand for housing which was already far below the existing requirements. However, the emotional and political pressures in Poland and Czechoslovakia to expel these Germans from the liberated homelands were too great to be resisted on grounds of the resulting discomfort to Germans within Germany.

The overcrowding within Germany made it impossible however for the occupying authorities to give relief to Denmark which, at the end of 1946, was still caring for 200,000 Germans who could not be returned to Germany. These were the remnants of the westward movement of Germans in flight from the advancing Soviet armies in the spring of 1945. They constituted a heavy burden on Denmark from which she desperately sought relief.

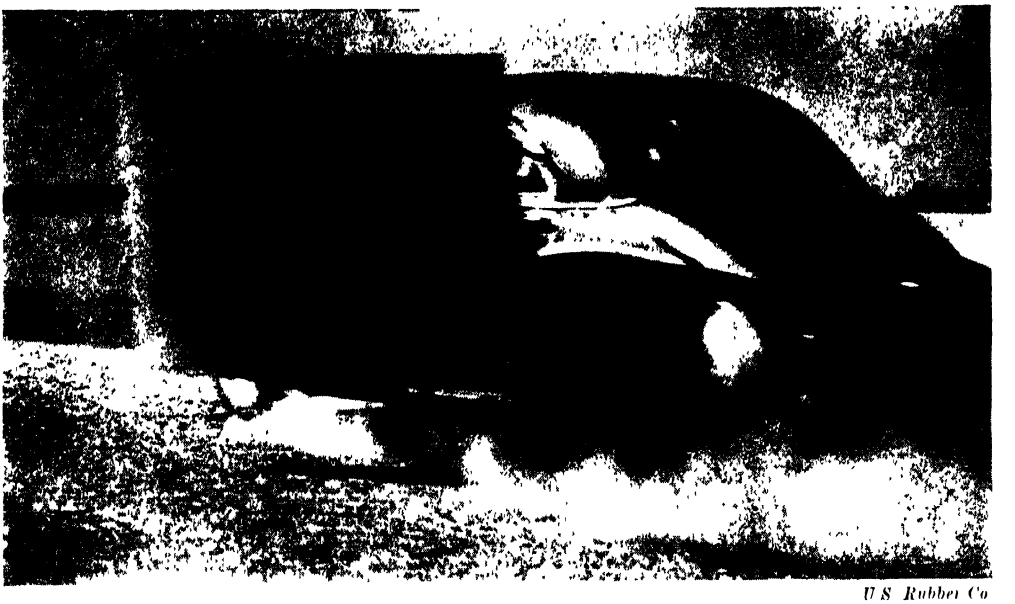
The United Nations Relief and Rehabilitation Administration at the meeting of its Council in August, 1946, in Geneva, voted to discontinue operations on behalf of displaced persons by June 30, 1947. This action was taken on the assumption that the International Refugee Organization, which was finally accepted by the General Assembly of the United Nations by a vote of 30–5 at its meeting in New York in December, 1946, would be in a position to assume responsibility for the problem by that time. The action of the General Assembly opened the constitution, including the budget of $160,000,000, of the International Refugee Organization to signature by the government members of the United Nations. The organization will come into effective operation when fifteen governments, whose total contributions constitute 75% of the budget, have signed the constitution thus indicating their willingness to afford the organization the necessary financial support.

The Intergovernmental Committee on Refugees, established by the Evian Conference called by President Franklin D. Roosevelt in 1938, which in July, 1946, expanded its functions to include that of facilitating the emigration and resettlement of non-repatriable displaced persons, also voted at its plenary meeting in London in December, 1946, to turn over its responsibilities and assets to the International Refugee Organization as soon as that body was prepared to function.

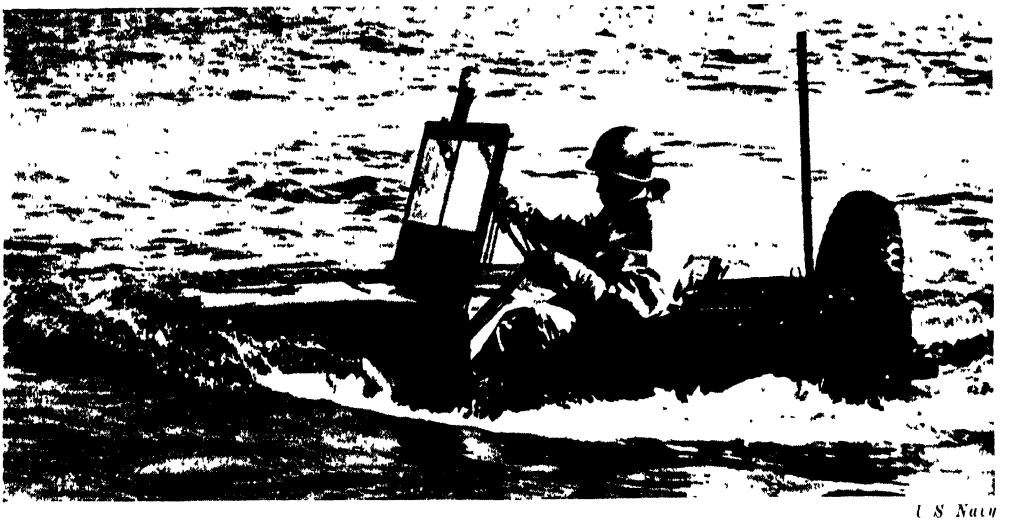
GEORGE L. WARREN.

RELIGIOUS ORGANIZATIONS. Church membership in the United States numbered 72,492,669 persons, the largest total in the nation's history, according to the *1945 Yearbook of American Churches*, pub-

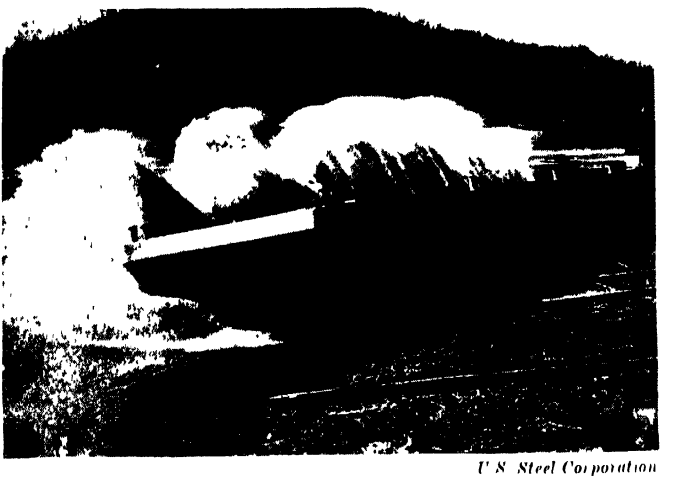
Above Kevin McCarthy, Harry Irvine (seated), Romney Brent, Roger De Koven, Ingrid Bergman, and Martin Rudy in *Joan of Lorraine* by Maxwell Anderson, presented by the Playwrights' Company. *Below* Carl Benton Reid, Leo Chalzel, Paul Crabtree, James Barton, Marcella Markham, Joe Marr in *The Iceman Cometh,* by Eugene O'Neill, presented by the Theatre Guild



U S Rubber Co



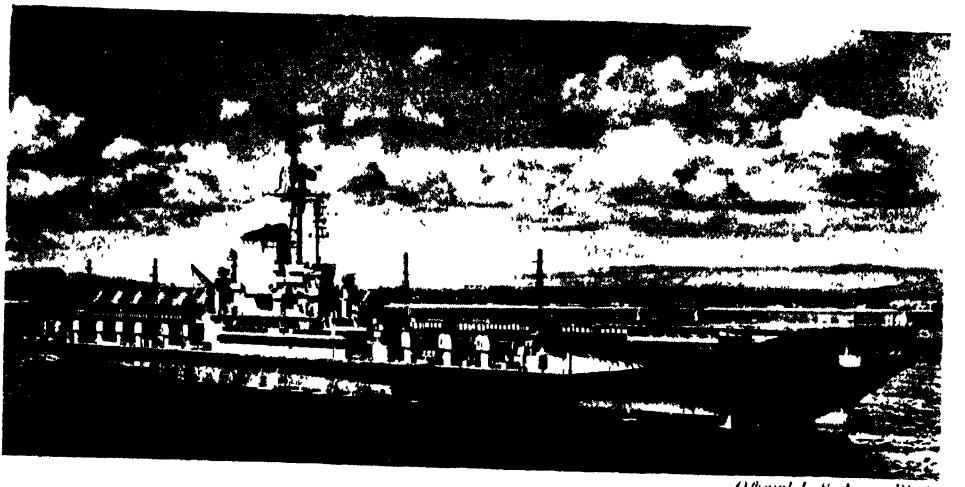
U S Navy



U S Steel Corporation

NEW TRANSPORTATION DEVELOPMENTS

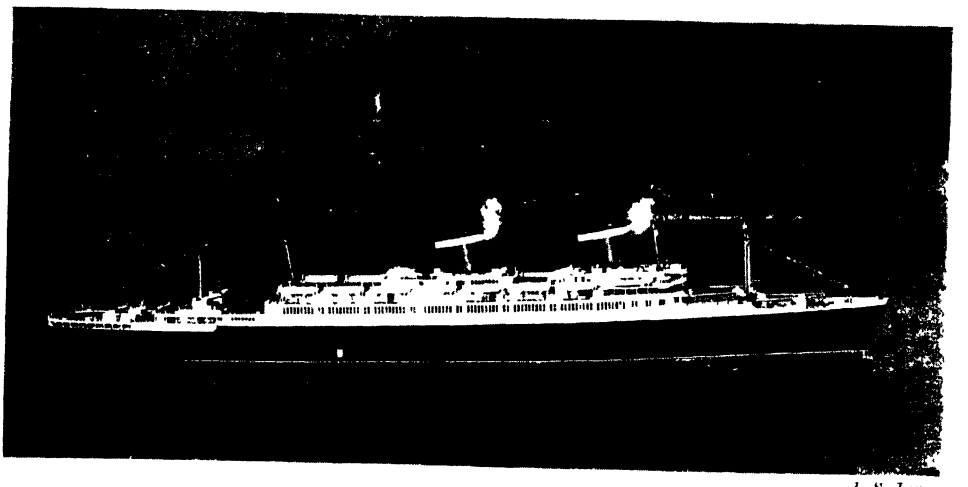
Above· To test tires at high speed on a circular track, a section of an airplane wing is used to counterbalance centrifugal force *Center.* A jeep uses extensions on the intake and exhaust manifold to ford deep water. *Below·* A new welded-steel coal barge hits the Ohio River's edge at Ambridge, Penn.



Official U S Navy Photo

NEW TYPE CARRIER

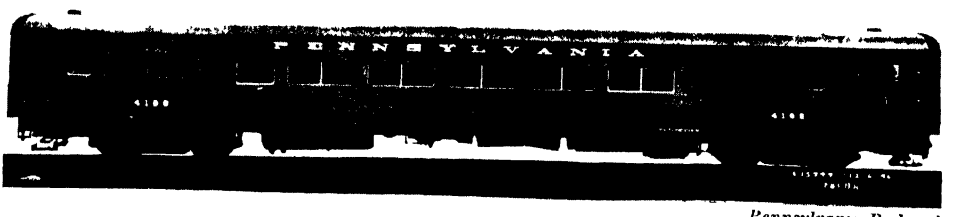
U S S *Franklin D. Roosevelt (CVB-42)*, the Navy's newest type carrier



U S Lines

FROM WAR TO PEACE

The luxury liner, *The America*, the newest, fastest, largest ever built in the United States, emerges from the shipyards after undergoing reconversion from the largest wartime Navy transport, *Westpoint* which steamed one half million miles carrying one half million troops without loss of life or damage during the entire war.



Pennsylvania Railroad

NEW OVERNIGHT COACH

The *Trail Blazer's* new overnight coaches of high tensile all-welded steel.

POSTWAR ERA IN THE SOVIET UNION

Above. Reconstruction of the Dnieper Dam. *Below.* The New "ZIS-110" cars move along the assembly line in Moscow's Stalin Plant. (*Photos by Sovfoto*)

lished under the auspices of the Federal Council of the Churches of Christ in America. This total comprises 52.5 percent of the July 1, 1944 population of 138,100,874 persons (Bureau of Census estimate). Of the total, 97.4 percent are reported in the 55 religious bodies having 50,000 or more members, with the remaining 2.6 percent of the membership found in 201 other bodies.

The majority of the total religious membership is absorbed by three religious groups: Protestant bodies over 50,000—41,943,104 members, Roman Catholic Church—23,419,701 members, and Jewish Congregations—4,641,184 members.

Contributions in gifts and bequests to religion in 1942, the latest survey, reached $720,800,000, as estimated by the Department of Commerce.

For further information on the larger denominations, see separate articles furnished by an official of each; FEDERAL COUNCIL OF THE CHURCHES OF CHRIST and JEWISH WELFARE BOARD.

REPARATIONS. Germany. The basic program of the United States and its Allies for the satisfaction of their reparation claims against defeated Germany is contained in two complementary agreements—the tripartite Potsdam Agreement of August 2, 1945 and the 18-power Paris Agreement on Reparation of January 14, 1946 resulting from the Paris Conference on Reparation.

At the Potsdam Conference the Governments of the United States, the Union of Soviet Socialist Republics, and the United Kingdom agreed upon the principles of a plan for the exaction of reparation which formed an integral part of a coordinated Allied political and economic policy toward Germany. The World War I conception of reparation as the maximum obtainable financial compensation in fixed sums of money for the staggering costs of war to the Allies was abandoned. According to John B. Howard, special advisor to James W. Angell, U.S. representative on the Allied Commission on Reparations for Germany, the application of this conception had actually transferred much of the real burden of German reparation to the Allies, in the form of repudiated loans. Instead, the Potsdam Agreement established two major new principles. First, it was agreed that the primary objective should be the establishment of military and economic security against renewed German aggression, not the maximizing of reparation receipts. Second, it was agreed that reparations should be paid by Germany in kind, rather than in cash, the payment in kind to be made out of such German assets as would, if left under German control, constitute an economic base for future aggression by Germany but would, if received as reparation, hasten the economic recovery of the United Nations. The total amount and duration of reparation and, to some extent, the character of the reparation assets to be made available by Germany were not fixed in advance but were made dependent upon subsequent determinations to be reached by the Control Council for Germany with respect to the establishment of the German economy on a peaceful basis.

Agreement was also reached at Potsdam upon a plan for the division of German reparation assets between the Union of Soviet Socialist Republics and Poland, on the one hand, and the United States, the United Kingdom, and other countries entitled to reparation, on the other hand. Under this plan and subsequent decisions the principal assets out of which the reparation claims of the countries in the latter group are to be satisfied include:

1. German enemy assets within the jurisdiction of these countries.
2. German external assets within the countries which remained neutral in the war against Germany.
3 75 percent of the industrial capital equipment to be removed from the western zones of Germany. Of the 25 percent which is to be allocated to the U.S.S.R and Poland, 10 percent represents reparation to these countries and 15 percent is to be paid for by the U.S.S.R. in food, raw materials, and other products
4. Two thirds of the German merchant marine The Potsdam Agreement provided for equal distribution of the surrendered German merchant marine among the U.S.S.R., United States, and United Kingdom It provided further that the U.S.S.R would provide out of its share for Poland and that the United States and United Kingdom would provide, from their shares, appropriate amounts for other Allied countries whose merchant marines have suffered heavy losses in the war against Germany. The ships allocated to the United States and United Kingdom, in accordance with their respective one-third shares, have been made available by these countries to the Inter-Allied Reparation Agency, referred to below, for distribution by the Agency among the 18 member governments in accordance with the principles of allocation established in the Paris Agreement.
5 The commodities to be delivered by the Union of Soviet Socialist Republics (referred to hereafter as Russian reciprocal deliveries) in exchange for receipt of 15 percent of the industrial capital equipment to be removed from the western zones of Germany.

At the Paris Conference on Reparation the governing principles and the mechanism were established for the division of these reparation assets among the 18 governments which participated in the conference. Arrangements are under consideration whereby certain other governments which are entitled to receive reparation from Germany and which did not participate in the conference will meet their reparation claims from German external assets within their several jurisdictions.

Several major results were achieved by the Paris Conference and by the Paris Agreement:

1. Agreement was reached among the 18 governments on their respective shares in all assets available to these governments collectively as reparation from Germany.

In the establishment of reparation shares the Paris Conference was guided by the principle, agreed upon at the Yalta Conference of February 1945, that reparation from Germany should be received in the first instance by those countries which have borne the main burden of the war, have suffered the heaviest losses, and have organized victory over the enemy. The sum total of claims for direct damage, war expenditures, and occupation costs alone amounted to almost $300 billion, an amount obviously tremendously in excess of the total value of any probable available German reparation assets.

This statistical data necessarily provided much of the basis for determining the relative sizes of the reparation shares of the several countries. The reparation shares agreed upon assign separate percentage shares to each government in two different categories of reparation assets. One category, designated A, includes all reparation assets except industrial and other capital equipment removed from Germany and merchant ships and inland water transport. The latter types of assets comprise the other category, designated B. These percentage shares are listed in the table on page 545.

The reparation receipts to which the United States is entitled, as a consequence of its percentage shares as shown above and of the special provisions of the Paris Agreement applying to German external assets and to receipts of German merchant ships, may be summarized as follows:

(*a*) All German external assets within the jurisdiction of the United States, estimated at some $200 million;
(*b*) 28 percent of German external assets in neutral countries;

(c) A share of German merchant shipping proportionate to the relative tonnage losses of the United States;
(d) 11.8 percent of industrial and other capital equipment removed from the western zones of Germany and made available to the governments participating in the Paris Conference; and
(e) 28 percent of the value of all other German assets made available for reparation to these governments, including such assets as Russian reciprocal deliveries.

Country	Percentage Share Category A	Category B
Albania	0 05	0 35
United States of America	28 00	11 80
Australia	0 70	0 95
Belgium	2 70	4 50
Canada	3 50	1.50
Denmark	0 25	0 35
Egypt	0 05	0 20
France	16 00	22.80
United Kingdom	28 00	27 80
Greece	2 70	4 35
India	2 00	2 90
Luxembourg	0 15	0 40
Norway	1 30	1 90
New Zealand	0 40	0 60
Netherlands	3 90	5 60
Czechoslovakia	3 00	4 30
Union of South Africa	0 70	0 10
Yugoslavia	6 60	9 60
	100 00	100 00

At the Paris Conference the United States did not claim so large a percentage share of industrial equipment as of other types of reparation assets. This decision was based on the fact that the early receipt of such equipment is especially important to the war-devastated countries of Europe, whereas the United States, as a capital exporting nation, has only a limited interest in such equipment. The share of the United States is large enough to cover equipment which may be removed from Germany as reparation in which there are private American pre-war financial interests of a substantial character, and also to make possible the receipt of a relatively small volume of special items likely to be desired by the United States and its nationals. Canada and the Union of South Africa likewise decided at the Paris Conference not to claim so large a share of industrial equipment as of other types of reparation assets.

United States Zone. The work that is now going on in the U.S. Zone was actually begun at Yalta early in February, 1945. There, the Chiefs of State of the United States, United Kingdom, and the Union of Soviet Socialist Republics declared their inflexible purpose to destroy German militarism and to eliminate or control all German industry that could be used for military production. They also agreed on the principle that Germany should make compensation in kind, to the greatest extent possible, for the damage and destruction inflicted on the Allied countries during the war.

At Potsdam, between July 17 and August 2, 1945, the same Three Powers spelled out the Declaration of Yalta in terms of a definite program, which included: (1) Elimination of the facilities for, and prohibition of the production of, arms, ammunition, and implements of war as well as all types of aircraft and seagoing ships. (2) Destruction of the German war potential by removal of industrial capital equipment from the heavy industries, principally metals, machinery and chemicals.

The Potsdam Declaration also provided that, during the period of occupation, Germany should be treated as a single economic unit, with common policies in regard to economic life and reparation removals. To implement this provision, central German administrative departments were to be established for finance, transport, communications, foreign trade and industry. Such departments were to be headed by State Secretaries and act under the direction of the Control Council.

Between JCS 1067 and the Reparations Agreement of March, 1946, the U.S. military government launched one of the greatest industrial hide-and-seek operations on record. There was no complete, easy-to-be-had list of Nazi war facilities. They were scattered throughout the length and breadth of Hitler's Germany—inside mountains, in forests, below the ground, on isolated beaches, and in hosts of small shops and plants that were never designed explicitly for war production. An economic hunt was called for.

Since the summer of 1945, Military Government has been sifting, screening, and reviewing a list of hundreds of reputed German war plants in the U.S. Zone. Work on this list, which represents a pool of Army-Navy-Air Force data, is now almost complete In all, the number of plants so considered—and which will either be available for reparations or retained for the German economy—runs into the thousands.

On May 4 the U.S. Deputy Military Governor gave instructions to stop further dismantling of reparations plants in the U.S. Zone except for those 24 plants allocated as "advance reparations" and war explosives plants on which work was already under way. This policy was adopted pending definite assurance that the provisions for treating Germany as an economic unit as specified in the Potsdam Declaration and the Reparations Plan will actually be put into effect.

The established level of industry for Germany is based on the existing plant capacity of all four zones Plants considered for reparations and removal are war-potential plants and plants not required to maintain the established level of industry Until such time as Germany is treated as a single economic unit it is necessary that plants now scheduled for reparations or removal be retained in each of the industrial fields to supplement the capacity originally anticipated from the other zones.

The Potsdam agreement provides that during the period of occupation Germany shall be treated as an economic unit; that allied controls shall be imposed on the German economy only to the extent necessary to ensure equitable distribution of German commodities as between the several zones in order to produce a balance economy throughout Germany and reduce the need of imports, that certain specified German central departments be created to assure the administration of these controls.

This policy was modified on June 28, when all plants in the U.S. Zone officially classified as "war plants" (those engaged exclusively in production of materials primarily used for war) were released for destruction and/or dismantling. The total so classified in the U.S. Zone at that time was 98 plants, of which 69 had been either completely dismantled and/or destroyed or such work was under way. The remaining 48 plants are now to be dismantled or destroyed, thus again throwing into high gear the industrial demilitarization program in the U.S. Zone.

Approximately 17,000 persons in the U.S. Zone are working on one or another phase of reparations activity—destruction, dismantling, shipping, evaluation, administration, statistics.

As of Aug. 1, 1946, 156 plants in the U.S. Zone had been confirmed for reparations by the Economic Directorate. Industries represented include aircraft, armaments, chemicals, machinery, metals, oil, and shipbuilding.

Of the 156 plants "confirmed," 24 were allocated as "advance reparations" in October, 1945. These allocations were made in conjunction with a swift appraisal (The basic clauses of the evaluation formula agreed by the Coordinating Committee of the Allied Control Council on January 7, 1946: Plant and equipment shall be evaluated at 1938 replacement cost, in Reichsmarks, without taking into account delivery and installation expenses. War damage, if any, will be deducted and depreciation allowed at rates to be agreed upon, subject to a multiplier of 1.35 for every year of war use. Maximum allowance deductible for war damage and depreciation will be 78 percent of the 1938 cost and will be applied to the unit of allocation as determined by the Economic Directorate of the Allied Control Authority.) of the plants, known as "Operation RAP." This represented an attempt to make available in the shortest possible time a number of reparations plants to the Soviet Union and the Western Nations.

Dismantling of these plants began immediately and, as of July 1, six of the 24 plants had been completely dismantled.

On March 31, 1946, the first shipment of reparations equipment—from the huge Kugelfischer ball-bearing plant at Schweinfurt—was loaded on rail cars and forwarded to Bremen, there to be transshipped to the Soviet Union. Since then, reparations equipment has been forwarded to Bremen from three other plants. Daimler-Benz Underground Aircraft Engine Plant, Deschimag Shipyards, and Gendorf Power Plant.

As of August 1, 11,000 tons of reparations equipment from these plants, all representing "Advance deliveries" were made available at the port of Bremen for transhipment by water to the U.S.S.R. Shipments totalling 9,092 tons of equipment have been made from the port of Bremen to the Soviet Union.

The destruction of war plants—those engaged exclusively in the production of materials primarily used for war—is part and parcel of the reparations program. After removing general-purpose equipment, power plants, etc., for reparations, such facilities are destroyed. As of July 1, 69 war plants in the U S Zone had been dismantled and/or destroyed, or in process of such treatment.

Japan. During 1946 the reparations program for Japan was under constant discussion by the Far Eastern Commission, but no specific measures were reached by all concerned powers.

The first specific designation of properties to be considered for reparations was made on January 20, 1946. A directive, issued by Gen. Douglas A. MacArthur, Supreme Commander for the Allied Powers, listed aircraft factories, military and naval arsenals and research laboratories to be placed under SCAP custody and control. Their protection and maintenance was made a responsibility of the Japanese Government. Additions and deletions to the list have been made from time to time and it now contains 504 installations

SCAP directives of August 13, 1946 placed under custody 505 plants in eight industrial categories. All privately-owned munitions plants were listed for reparations. In the seven other industrial fields the Japanese were allowed to retain capacities essential to the minimum economy of the country.

For discussions on reparations in the Allied Council and the United States recommendations, see the article on JAPAN. Also see GERMANY, MILITARY GOVERNMENT, PARIS PEACE CONFERENCE, UNION OF SOVIET SOCIALIST REPUBLICS.

During the Paris Peace Conference reparations claims were established against Italy, Rumania, Finland, and Bulgaria. Following are pertinent excerpts from the draft treaties and revisions adopted in later Conference discussions.

Italy.

A. Reparation for the U.S S R.

1 Italy shall pay the Soviet Union reparation in the amount of $100,000,000 over a period of seven years from the date of the coming into force of the treaty. Deliveries from the current industrial production shall not be made during the first two years

2 Reparations shall be made from the following courses

(a) A share of the Italian factory and tool equipment designed for the manufacture of war implements which is not required by the permitted military establishments and is not readily susceptible of conversion to civilian purposes

(b) Italian assets in Rumania, Bulgaria, and Hungary, subject to some exceptions

(c) Italian current industrial production

3 The quantities and types of goods to be delivered shall be the subject of agreements between the Italian Government and the Government of the U S S R. and shall be selected and deliveries scheduled in such a way as to avoid interference with the economic reconstruction of Italy and the imposition of additional liabilities on other Allied or Associated Powers Agreements concluded under this paragraph shall be communicated to the four Ambassadors in Rome of the U S S R, U K, U S A and France

4 The U S S R shall furnish to Italy on commercial terms the materials which are normally imported into Italy and which are needed for the production of these goods Payments for these materials shall be made by deducting the value of the materials furnished from the value of the goods delivered to the U.S S R

5 The four Ambassadors shall determine the value of the Italian assets to be transferred to the U S S R.

In the final sessions of the Conference, it was agreed that Italy should pay a total of $325,000,000 to the Soviet Union, Yugoslavia, Greece, and Ethiopia.

Rumania.

Losses caused to the Soviet Union by military operations and by the occupation by Rumania of Soviet territory will be made good by Rumanians to the Soviet Union, but taking into consideration that Rumania has not only withdrawn from the war against the United Nations, but has declared and, in fact, waged war against Germany, it is agreed that compensation for the above losses will be made by Rumania not in full but only in part, namely to the amount of 300,000,000 United States dollars payable over eight years from Sept. 12, 1944, in commodities —oil products, grain, timber, seagoing and river craft, sundry machinery, etc.

The basis for calculating the settlement provided for in this Article will be the United States dollar at its gold parity on the day of the signing of the Armistice Agreement, i e, 35 dollars for one ounce of gold

The Conference agreed that the $300,000,000 should be divided among the Soviet Union, Yugoslavia, and Czechoslovakia.

Finland.

Losses caused to the Soviet Union by military operations and by the occupation by Finland of Soviet territory will be made good by Finland to the Soviet Union, but taking into consideration that Finland has not only withdrawn from the war against the United Nations but has declared war on Germany and assisted with her forces in driving German troops out of Finland, the parties agree that compensation for the above losses will be made by Finland not in full, but only in part, namely to the amount of 300,000,000 United States dollars payable over eight years as from Sept 19, 1944, in commodities—timber products, paper, cellulose, seagoing and river craft, sundry machinery, etc

The basis for calculation for the payment of indemnity will be the United States dollar at its gold parity on the day of the signing of the armistice agreement, i e., $35 for one ounce of gold

Finland, in so far as she has not yet done so, undertakes within the time limits indicated by the Government of the U S S R to return to the Soviet Union in complete good order all valuables and materials removed from its territory during the war, and belonging to state, public and cooperative organizations, enterprises, institutions or individual citizens, such as factory and works equipment, loco-

motives, rolling stock, tractors, motor vehicles, historic monuments, museum valuables and any other property.

No revisions were made to these clauses.

Bulgaria.

Losses caused to Yugoslavia and Greece by military operations and by the occupation by Bulgaria of the territory of those states will be indemnified by Bulgaria to Yugoslavia and Greece, but, taking into consideration that Bulgaria has not only withdrawn from the war against the United Nations, but has declared and in fact waged war against Germany, the parties agree that compensation for the above losses will be made by Bulgaria not in full but only in part, namely to the amount of 125,000,000 United States dollars

Hungary.

Losses caused to the Soviet Union, Czechoslovakia and Yugoslavia by military operations and by the occupation by Hungary of the territories of these States will be indemnified by Hungary to the Soviet Union, Czechoslovakia and Yugoslavia, but taking into consideration that Hungary has not only withdrawn from the war against the United Nations but has also declared war on Germany, the parties agree that compensation for the above losses will be made by Hungary not in full but only in part, namely to the amount of 300,000,000 United States dollars, payable over eight years from Jan. 20, 1945, in commodities (machine equipment, river craft, grain, etc. . . .), the sum to be paid to the Soviet Union to amount to 200,000,000 United States dollars, and the sum to be paid to Czechoslovakia and Yugoslavia to amount to 100,000,000 United States dollars

The basis for calculating the settlement provided for in this Article will be the American dollar at its gold parity on the day of the signing of the armistice agreement, i e, $35 for one ounce of gold.

REPRESENTATIVES, U.S. The following list by States of the members of the House of Representatives, 80th Congress, convening in 1947, was taken from the official list compiled by South Trimble, Clerk of the House. The numbers preceding the names indicate Congressional districts, those appearing without numbers being Representatives at Large. Other facts indicated in the type are as follows:

Republicans in roman (246); Democrats in *italic* (188); American Labor in SMALL CAPS (1); total 435. Those marked ° served in the Seventy-ninth Congress, those marked † served in a previous Congress. Predecessors of incoming Members in brackets [ ].

Alabama

1 *Frank W. Boykin* * . . . . . Mobile
2. *George M. Grant* * . . . . . Troy
3 *George W Andrews* * . . . . Union Springs
4 *Sam Hobbs* * . . . . . Selma
5 *Albert Rains* * . . . . . Gadsden
6 *Pete Jarman* * . . . . . Livingston
7 *Carter Manasco* * . . . . . Jasper
8 *John J. Sparkman* * . . . . . Huntsville
9 *Laurie C. Battle* [*Luther Patrick*] . Birmingham

Arizona

Richard F Harless * . . . . . Phoenix
John R. Murdock * . . . . . Tempe

Arkansas

1 *E C. Gathings* * . . . West Memphis
2 *Wilbur D. Mills* * . . Kensett
3. *James W. Trimble* * . . Berryville
4 *Fadjo Cravens* * . . . Fort Smith
5 *Brooks Hays* * . . . . Little Rock
6 *W. F. Norrell* * . . . . . Monticello
7 *Oren Harris* * . . . . El Dorado

California

1 *Clarence F. Lea* * . . . . . Santa Rosa
2 *Clair Engle* * . . . . . Red Bluff
3 J Leroy Johnson * . . . . . Stockton
4. *Franck R. Havenner* * . . . . . San Francisco
5 Richard J Welch * . . . . . San Francisco
6 *George P Miller* * . . . . . Alameda
7. John J. Allen, Jr. [*John H Tolan*] . . . . Oakland
8 Jack Z Anderson * . . . . . San Juan Bautista
9. Bertrand W Gearhart * . . . . . Fresno
10. *Alfred J. Elliott* * . . . . . Tulare
11. Ernest K Bramblett [*George E Outland*] Pacific Grove
12. Richard M Nixon [*Jerry Voorhis*] . . . Whittier
13. Norris Poulson † [*Ned R. Healy*] . . Los Angeles
14. *Helen Gahagan Douglas* * . . . . . Los Angeles

California—Continued

15. Gordon L McDonough * . . . . . Los Angeles
16. Donald L Jackson [*Ellis E. Patterson*] Santa Monica
17. *Cecil R. King* * . . . . . Los Angeles
18. Willis W Bradley [*Clyde Doyle*] . . . . . Long Beach
19. *Chet Holifield* * . . . . . Montebello
20. Carl Hinshaw * . . . . . Pasadena
21. *Harry R Sheppard* * . . . . . Yucaipa
22. John Phillips * . . . . . Banning
23. Charles K Fletcher [*Ed V. Izac*] . . . . . San Diego

Colorado

1. *John A. Carroll* [Dean M Gillespie] . . . . Denver
2. William S. Hill * . . . . . Fort Collins
3 J Edgar Chenoweth * . . . . . Trinidad
4 Robert F. Rockwell * . . . . . Paonia

Connecticut

1 William J Miller † [*Herman P Kopplemann*] . . . Wethersfield
2. Horace Seely-Brown [*Chase Going Woodhouse*] . . . . . Pomfret
3 Ellsworth B Foote [*James P. Geelan*] . . . . North Branford
4. John Davis Lodge [Clare Boothe Luce] Westport
5. James T Patterson [Joseph E Talbot] Naugatuck
Antoni N. Sadlak [*Joseph F Ryter*] . . . . . Rockville

Delaware

J Caleb Boggs [*Philip A Traynor*] . . Wilmington

Florida

1. *J. Hardin Peterson* * . . . . Lakeland
2. *Emory H. Price* * . . . Jacksonville
3. *Robert L. F Sikes* * . . . . . Crestview
4 *George A Smathers* [*Pat Cannon*] . . . . Miami
5. *Joe Hendricks* * . . . . De Land
6. *Dwight L Rogers* * . . . . Fort Lauderdale

Georgia

1 *Prince H Preston* [*Hugh Peterson*] . . Statesboro
2. *E E Cox* * . . . . . Camilla
3 *Stephen Pace* * . . . . . Americus
4. *A Sidney Camp* * . . . . . Newnan
5. *James C. Davis* [*Helen Douglas Mankin*] Decatur
6. *Carl Vinson* * . . . . . Milledgeville
7. *Henderson Lanham* [*Malcolm C. Tarver*] Rome
8. *W. M. (Don) Wheeler* [*John S. Gibson*] . Douglas
9. *John S. Wood* * . . . . . Canton
10. *Paul Brown* * Elberton

Idaho

1. Abe McGregor Goff [*Compton I White*] . Moscow
2. John Sanborn [*Henry C. Dworshak*] . Hagerman

Illinois

1. *William L Dawson* * . . . . . Chicago
2. Richard B Vail [*William A Rowan*] . . Chicago
3. Fred E Busbey † [*Edward A Kelly*] . . . Chicago
4. *Martin Gorski* * . . . . . Chicago
5. *Adolph J Sabath* * . . . . . Chicago
6 *Thomas J. O'Brien* * . . . Chicago
7. Thomas L. Owens [*William W. Link*] . . Chicago
8 *Thomas S Gordon* * . . . . . Chicago
9. Robert J Twyman [*Alexander J Resa*] . . . Chicago
10. Ralph E Church * . . . . . Evanston
11. Chauncey W Reed * . . . . . West Chicago
12 Noah M Mason * . . . . . Oglesby
13 Leo E Allen * . . . . . Galena
14 Anton J Johnson * . . . . . Macomb
15. Robert B Chiperfield * . . . Canton
16. Everett M Dirksen * . . . . . Pekin
17. Leslie C Arends * . . . . . Melvin
18. Edward H. Jenison [Jessie Sumner] . . Paris
19 Rolla C McMillen * . . Decatur
20. Sid Simpson * . . . . . Carrollton
21. Evan Howell * . . . . . Springfield
22. *Melvin Price* * . . . . East St Louis
23. Charles W Vursell * . . . Salem
24 Roy Clippinger * . . . . . Carmi
25. C W (Runt) Bishop * . . . . Carterville
William G. Stratton † [*Emily Taft Douglas*] . . Morris

Indiana

1. *Ray J Madden* * . . . . . Gary
2. Charles A Halleck * . . . . . Rensselaer
3. Robert A Grant * . . . . . South Bend
4 George W. Gillie * . . . . . Fort Wayne
5. Forest A Harness * . . . . . Kokomo
6. Noble J Johnson * . . . . . Terre Haute
7 Gerald W Landis * . . . . . Linton
8 E (Edward) A Mitchell [Charles M LaFollette] . . . Evansville
9. Earl Wilson * . . . . . Huron
10 Raymond S Springer * . . . . . Connersville
11 *Louis Ludlow* * . . . . . Indianapolis

Iowa

1 Thomas E. Martin * . . . . . Iowa City
2. Henry O. Talle * . . . . . Decorah

Iowa—Continued

3. John W. Gwynne * ..... Waterloo
4. Karl M LeCompte * ..... Corydon
5. Paul Cunningham * ..... Des Moines
6. James I. Dolliver * ..... Fort Dodge
7 Ben F. Jensen * ..... Exira
8. Charles B. Hoeven * ..... Alton

Kansas

1. Albert M. Cole * ..... Holton
2. Errett P. Scrivner * ..... Kansas City
3 Herbert A. Meyer [Thomas D Winter] Independence
4. Edward H Rees * ..... Emporia
5. Clifford R. Hope * ..... Garden City
6 Wint Smith [Frank Carlson] ..... Mankota

Kentucky

1. *Noble J. Gregory* * ..... Mayfield
2. *Earle C. Clements* * ..... Morganfield
3 Thruston Ballard Morton [*Emmet O'Neal*] Glenview
4. *Frank L. Chelf* * ..... Lebanon
5. *Brent Spence* * ..... Fort Thomas
6. *Virgil Chapman* * ..... Paris
7. W. Howes Meade [*Andrew J. May*] ..... Paintsville
8. *Joe B Bates* * ..... Greenup
9. John M Robsion * ..... Barbourville

Louisiana

1. *F Edward Hébert* * ..... New Orleans
2 *Hale Boggs* † [*Paul H Maloney*] ..... New Orleans
3. *James Domengeaux* * ..... Lafayette
4. *Overton Brooks* * ..... Shreveport
5. *Otto E Passman* [*Charles E. McKenzie*] Monroe
6. *James H Morrison* * ..... Hammond
7. *Henry D Larcade, Jr.* * ..... Opelousas
8. *A. Leonard Allen* * ..... Winnfield

Maine

1. Robert Hale * ..... Portland
2 Margaret Chase Smith * ..... Skowhegan
3 Frank Fellows * ..... Bangor

Maryland

1. Edward T Miller [*Dudley G. Roe*] ..... Easton
2. *Hugh A. Meade* [*H. Streett Baldwin*] Baltimore
3 *Thomas D'Alesandro, Jr* * ..... Baltimore
4. *George H Fallon* * ..... Baltimore
5 *Lansdale G Sasscer* * ..... Upper Marlboro
6. J. Glenn Beall * ..... Frostburg

Massachusetts

1 John W Heselton * ..... Deerfield
2. Charles R Clason * ..... Springfield
3. *Philip J. Philbin* * ..... Clinton
4. *Harold D Donohue* [Pehr G. Holmes] ..... Worcester
5. Edith Nourse Rogers * ..... Lowell
6 George J Bates * ..... Salem
7. *Thomas J Lane* * ..... Lawrence
8 Angier L Goodwin * ..... Melrose
9 Charles L. Gifford * ..... Cotuit
10 Christian A Herter * ..... Boston
11 *John F. Kennedy* [*James M Curley*] ..... Boston
12 *John W. McCormack* * ..... Dorchester
13 Richard B Wigglesworth * ..... Milton
14 Joseph W Martin, Jr * ..... North Attleboro

Michigan

1 *George G Sadowski* * ..... Detroit
2 Earl C Michener * ..... Adrian
3 Paul W. Shafer * ..... Battle Creek
4 Clare E Hoffman * ..... Allegan
5 Bartel J Jonkman * ..... Grand Rapids
6 William W Blackney * ..... Flint
7. Jesse P Wolcott * ..... Port Huron
8 Fred L. Crawford * ..... Saginaw
9 Albert J. Engel * ..... Muskegon
10. Roy O. Woodruff * ..... Bay City
11 Fred Bradley * ..... Rogers City
12 John B. Bennett † [*Frank E Hook*] ..... Ontonagon
13 Howard A. Coffin [*George D O'Brien*] ..... Detroit
14. Harold F Youngblood [*Louis C Rabaut*] Detroit
15. *John D Dingell* * ..... Detroit
16 *John Lesinski* * ..... Dearborn
17. George A. Dondero * ..... Royal Oak

Minnesota

1. August H Andresen * ..... Red Wing
2. Joseph P. O'Hara * ..... Glencoe
3. George MacKinnon [Guy V Howard] Minneapolis
4. Edward J. Devitt [*Frank T Starkey*] ..... St Paul
5 Walter H Judd * ..... Minneapolis
6 Harold Knutson * ..... Manhattan Beach
7. H Carl Andersen * ..... Tyler
8 *John A. Blatnik* [William A Pittenger] Chisholm
9. Harold C Hagen * ..... Crookston

Mississippi

1. *John E. Rankin* * ..... Tupelo
2. *Jamie L. Whitten* * ..... Charleston

Mississippi—Continued

3 *William M Whittington* * ..... Greenwood
4. *Thomas G. Abernethy* * ..... Okolona
5. *Arthur Winstead* * ..... Philadelphia
6. *William M. Colmer* * ..... Pascagoula
7. *John Bell Williams* [*Dan R. McGehee*] ..... Raymond

Missouri

1. Wat Arnold * ..... Kirksville
2. Max Schwabe * ..... Columbia
3. William C Cole * ..... St. Joseph
4 *C Jasper Bell* * ..... Blue Springs
5. Albert L Reeves, Jr [*Roger C Slaughter*] ..... Kansas City
6 Marion T Bennett * ..... Springfield
7. Dewey Short * ..... Galena
8. Parke M Banta [*A. S J Carnahan*] ..... Arcadia
9 *Clarence Cannon* * ..... Elsberry
10. *Orville Zimmerman* * ..... Kennett
11. Claude I. Bakewell [*John B Sullivan*] ..... St Louis
12. Walter C Ploeser * ..... Chesterfield, R. F. D.
13. *Frank M Karsten* [*John J. Cochran*] ..... St. Louis

Montana

1 *Mike Mansfield* * ..... Missoula
2 Wesley A D'Ewart * ..... Wilsall

Nebraska

1. Carl T. Curtis * ..... Minden
2 Howard H Buffett * ..... Omaha
3. Karl Stefan * ..... Norfolk
4 A L Miller * ..... Kimball

Nevada

Charles H Russell [*Berkeley L Bunker*] ..... Ely

New Hampshire

1. Chester E Merrow * ..... Center Ossipee
2 Norris Cotton [Sherman Adams] ..... Lebanon

New Jersey

1 Charles A Wolverton * ..... Merchantville
2. T Millet Hand * ..... Cape May City
3 James C. Auchincloss * ..... Rumson
4 Frank A Mathews, Jr * ..... Riverton
5 Charles A. Eaton * ..... Watchung
6 Clifford P. Case * ..... Rahway
7 J Parnell Thomas * ..... Allendale
8 Gordon Canfield * ..... Paterson
9 Harry L Towe * ..... Rutherford
10. Fred A. Hartley, Jr * ..... Kearny
11 Frank L Sundstrom * ..... East Orange
12. Robert W Kean * ..... Livingston
13 *Mary T Norton* * ..... Jersey City
14 *Edward J Hart* * ..... Jersey City

New Mexico

Antonio M Fernandez * ..... Santa Fe
Georgia L Lusk [*Clinton P Anderson*] ..... Santa Fe

New York

1 W Kingsland Macy [Edgar A Sharp] ..... Islip
2 Leonard W Hall * ..... Oyster Bay
3 Henry J Latham * ..... Queens Village
4. Gregory McMahon [*William B Barry*] Ozone Park
5 Robert Tripp Ross [*James A Roe*] Jackson Heights
6 Robert Nodar, Jr [*James J Delaney*] ..... Maspeth
7. *John J Delaney* * ..... Brooklyn
8 *Joseph L Pfeifer* * ..... Brooklyn
9 *Eugene J. Keogh* * ..... Brooklyn
10 *Andrew L Somers* * ..... Brooklyn
11. *James J. Heffernan* * ..... Brooklyn
12 *John J Rooney* * ..... Brooklyn
13. *Donald L. O'Toole* * ..... Brooklyn
14. *Leo F. Rayfiel* * ..... Brooklyn
15 *Emanuel Celler* * ..... Brooklyn
16 Ellsworth B. Buck * ..... Staten Island
17. Frederic R. Coudert, Jr [Joseph Clark Baldwin] ..... New York City
18. VITO MARCANTONIO * ..... New York City
19. *Arthur G Klein* * ..... New York City
20. *Sol Bloom* * ..... New York City
21. Jacob K. Javits [*James H Torrens*] ..... New York City
22. *Adam C Powell, Jr* * ..... New York City
23. *Walter A Lynch* * ..... New York City
24. *Benjamin J Rabin* * ..... New York City
25. *Charles A Buckley* * ..... New York City
26 David Potts [*Peter A Quinn*] ..... New York City
27 Ralph W Gwinn * ..... Bronxville
28 Ralph A Gamble * ..... Larchmont
29. Katharine St George [Augustus W. Bennet] ..... Tuxedo Park
30. Jay LeFevre * ..... New Paltz
31 Bernard W (Pat) Kearney * ..... Gloversville
32. *William T Byrne* * ..... Loudonville
33 Dean P Taylor * ..... Troy
34. Clarence E Kilburn * ..... Malone
35 Hadwen C Fuller * ..... Parish
36. R. Walter Riehlman [Clarence E. Hancock] ..... Tully

New York—Continued

37. Edwin Arthur Hall * ..... Binghamton
38. John Taber * ..... Auburn
39. W. Sterling Cole * ..... Bath
40. Kenneth B. Keating [*George F. Rogers*] .. Rochester
41. James W. Wadsworth * ..... Geneseo
42. Walter G. Andrews * ..... Buffalo
43. Edward J. Elsaesser * ..... Buffalo
44. John C. Butler * ..... Buffalo
45. Daniel A. Reed * ..... Dunkirk

North Carolina

1. *Herbert C. Bonner* * ..... Washington
2. *John H. Kerr* * ..... Warrenton
3. *Graham A. Barden* * ..... New Bern
4. *Harold D. Cooley* * ..... Nashville
5. *John H. Folger* * ..... Mount Airy
6. *Carl T. Durham* * ..... Chapel Hill
7. *J. Bayard Clark* * ..... Fayetteville
8. *C. B. Deane* [*Jane Pruitt*] ..... Rockingham
9. *Robert L. Doughton* * ..... Laurel Springs
10. *Hamilton C. Jones* [*Sam J. Ervin, Jr.*] ... Charlotte
11. *Alfred L. Bulwinkle* * ..... Gastonia
12. *Monroe M. Redden* [*Zebulon Weaver*] Hendersonville

North Dakota

William Lemke * ..... Fargo
Charles R. Robertson * ..... Bismarck

Ohio

1. Charles H Elston * ..... Cincinnati
2. William E Hess * ..... Cincinnati
3. Raymond H. Burke [*Edward J. Gardner*] Hamilton
4. Robert F. Jones * ..... Lima
5. Cliff Clevenger * ..... Bryan
6. Edward O. McCowen * ..... Wheelersburg
7. Clarence J. Brown * ..... Blanchester
8. Frederick C. Smith * ..... Marion
9. Homer A Ramey * ..... Toledo
10. Thomas A Jenkins * ..... Ironton
11. Walter E Brehm * ..... Logan
12. John M. Vorys * ..... Columbus
13. Alvin F. Weichel * ..... Sandusky
14. *Walter B. Huber* * ..... Akron
15. P W Griffiths * ..... Marietta
16. Henderson H Carson † [*William R Thom*] .Canton
17. J Harry McGregor * ..... West Lafayette
18. Earl R Lewis * ..... St. Clairsville
19. *Michael J. Kirwan* * ..... Youngstown
20. *Michael A. Feighan* * ..... Cleveland
21. *Robert Crosser* * ..... Cleveland
22. Frances P. Bolton * ..... Lyndhurst
George H. Bender * ..... Cleveland Heights

Oklahoma

1. George B Schwabe * ..... Tulsa
2. *William G. Stigler* * ..... Stigler
3. *Carl Albert* [*Paul Stewart*] ..... McAlester
4. *Glen D Johnson* [*Lyle H Boren*] ..... Okemah
5. *A. S. Mike Monroney* * ..... Oklahoma City
6. *Toby Morris* [*Jed Johnson*] ..... Lawton
7. *Preston E. Peden* [*Victor Wickersham*] ..... Altus
8. Ross Rizley * ..... Guymon

Oregon

1. Walter Norblad * ..... Astoria
2. Lowell Stockman * ..... Pendleton
3. Homer D. Angell * ..... Portland
4. Harris Ellsworth * ..... Roseburg

Pennsylvania

1. James Gallagher † [*William A Barrett*] Philadelphia
2. Robert N. McGarvey [*William T. Granahan*] ..... Philadelphia
3. Hardie Scott [*Michael J. Bradley*] .... Philadelphia
4. Franklin J Maloney [*John Edward Sheridan*] ..... Philadelphia
5. George W. Sarbacher, Jr. [*William J Green, Jr.*] ..... Philadelphia
6. Hugh D. Scott, Jr † [*Herbert J McGlinchey*] ..... Philadelphia
7. E Wallace Chadwick [James Wolfenden] .Moylan
8. Charles L. Gerlach * ..... Allentown
9. Paul B. Dague [J. Roland Kinzer] ... Downingtown
10. James P. Scoblick * ..... Archbald
11. Mitchell Jenkins [*Daniel J. Flood*] .... Trucksville
12. Ivor D Fenton * ..... Mahanoy City
13. Frederick A. Muhlenberg [*Daniel K Hoch*] ..... Sinking Springs (R. F. D.)
14. Wilson D Gillette * ..... Towanda
15. Robert F. Rich * ..... Woolrich
16. Samuel K. McConnell, Jr.* ..... Penn Wynne
17. Richard M Simpson * ..... Huntingdon
18. John C. Kunkel * ..... Harrisburg
19. Leon H. Gavin * ..... Oil City
20. *Francis E. Walter* * ..... Easton
21. Chester H. Gross * ..... Manchester (R F. D.)
22. James E Van Zandt † [D. Emmert Brumbaugh] ..... Altoona

Pennsylvania—Continued

23. William J. Crow [Carl H. Hoffman] .... Uniontown
24. *Thomas E. Morgan* * ..... Fredericktown
25. Louis E. Graham * ..... Beaver
26. Harve Tibbott * ..... Ebensburg
27. *Augustine B. Kelley* * ..... Greensburg
28. Carroll D. Kearns [Robert L. Rodgers] ..... Farrell
29. John McDowell † [Howard E. Campbell] ..... Wilkinsburg
30. Robert J. Corbett * ..... Bellevue
31. James G. Fulton * ..... Dormont (Pittsburgh)
32. *Herman P. Eberharter* * ..... Pittsburgh
33. *Frank Buchanan* * ..... McKeesport

Rhode Island

1. *Aime J. Forand* * ..... Cumberland
2. *John E. Fogarty* * ..... Harmony

South Carolina

1. *L. Mendel Rivers* * ..... Charleston
2. *John J. Riley* * ..... Sumter
3. *W J. Bryan Dorn* [*Butler B. Hare*] ... Greenwood
4. *Joseph R. Bryson* * ..... Greenville
5. *James P. Richards* * ..... Lancaster
6. *John L. McMillan* * ..... Florence

South Dakota

1. Karl E. Mundt * ..... Madison
2. Francis Case * ..... Custer

Tennessee

1. Dayton Phillips [B. Carroll Reece] .... Elizabethton
2. John Jennings, Jr * ..... Knoxville
3. *Estes Kefauver* * ..... Chattanooga
4. *Albert Gore* * ..... Carthage
5. *Joe L. Evins* [*Harold H. Earthman*] .. Smithville
6. *J. Percy Priest* * ..... Nashville
7. *Wirt Courtney* * ..... Franklin
8. *Tom Murray* * ..... Jackson
9. *Jere Cooper* * ..... Dyersburg
10. *Clifford Davis* * ..... Memphis

Texas

1. *Wright Patman* * ..... Texarkana
2. *J M. Combs* * ..... Beaumont
3. *Lindley Beckworth* * ..... Gladewater (R. F. D.)
4. *Sam Rayburn* * ..... Bonham
5. *J Frank Wilson* [*Hatton W. Sumners*] .... Dallas
6. *Olin E Teague* * ..... College Station
7. *Tom Pickett* * ..... Palestine
8. *Albert Thomas* * ..... Houston
9. *Joseph J Mansfield* * ..... Columbus
10. *Lyndon B Johnson* * ..... Johnson City
11. *W. R Poage* * ..... Waco
12. *Wingate Lucas* [*Fritz G. Lanham*] .... Grapevine
13. *Ed Gossett* * ..... Wichita Falls
14. *John E Lyle* * ..... Corpus Christi
15. *Milton H. West* * ..... Brownsville
16. *R Ewing Thomason* * ..... El Paso
17. *Omar Burleson* [*Sam M Russell*] ..... Ansom
18. *Eugene Worley* * ..... Shamrock
19. *George H Mahon* * ..... Colorado City
20. *Paul J. Kilday* * ..... San Antonio
21. *O. C. Fisher* * ..... San Angelo

Utah

1. *Walter K Granger* * ..... Cedar City
2. William A Dawson [*J. W. Robinson*] ..... Layton

Vermont

Charles A. Plumley * ..... Northfield

Virginia

1. *Schuyler Otis Bland* * ..... Newport News
2. *Porter Hardy, Jr* [*Ralph H. Daughton*] ... Norfolk
3. *J. Vaughan Gary* * ..... Richmond
4. *Patrick H. Drewry* * ..... Petersburg
5. *Thomas B. Stanley* * ..... Stanleytown
6. *J. Lindsay Almond, Jr* * ..... Roanoke
7. *Burr P. Harrison* * ..... Winchester
8. *Howard W Smith* * ..... Alexandria
9. *John W. Flannagan, Jr.* * ..... Bristol

Washington

1. Homer R. Jones [*Hugh De Lacy*] ..... Bremerton
2. *Henry M. Jackson* * ..... Everett
3. Fred Norman † [*Charles Savage*] ..... Raymond
4. Hal Holmes * ..... Ellensburg
5. Walt Horan * ..... Wenatchee
6. Thor C. Tollefson [*John M. Coffee*] ..... Tacoma

West Virginia

1. Francis J Love [*Matthew M Neely*] ... Wheeling
2. Melvin C. Snyder [*Jennings Randolph*] .. Kingwood
3. Edward G. Rohrbough † [*Cleveland M. Bailey*] ..... Glenville
4. Hubert S. Ellis * ..... Huntington
5. *John Kee* * ..... Bluefield
6. *E. H. Hedrick* * ..... Beckley

Wisconsin

1. Lawrence H. Smith * . . . . . Racine
2. Robert K Henry * . . . . . Jefferson
3. William H. Stevenson * . . . . . La Crosse
4. John C. Brophy [*Thad F. Wasielewski*] Milwaukee
5. Charles J. Kersten [*Andrew J. Biemiller*] Milwaukee
6. Frank B Keefe * . . . . . Oshkosh
7. Reid F Murray * . . . . . Ogdensburg
8. John W Byrnes * . . . . . Green Bay
9. Merlin Hull * . . . . . Black River Falls
10. Alvin E O'Konski * . . . . . Mercer

Wyoming

Frank A Barrett * . . . . . Lusk

Alaska Delegate

E. L. Bartlett * . . . . . Juneau

Hawaii Delegate

Joseph R Farrington * . . . . . Honolulu

Resident Commissioner of Puerto Rico

A Fernos-Isern [a] . . . . . San Juan

[a] Popular Democrat. Appointed Sept 11, 1946, to fill the vacancy in the term ending Jan 3, 1949, caused by the resignation of Jesús T Piñero, Sept 2, 1946.

RÉUNION. A Department of France, 420 miles east of Madagascar. On March 14, 1946, the status of Réunion was changed from a colony to a department, effective January 1, 1947. Area, 970 square miles; population (1941), 220,955. Chief towns: St Denis (capital), 32,637 inhabitants (1941); St. Paul, 23,055; St. Louis, 20,867; St. Pierre, 20,150. Pointe-des-Galets is the main port. Education (1941): 245 schools and 22,900 pupils. The chief products are sugar, rum, manioc, coffee, vanilla, and spices. Trade (1944). imports 258,560,000 francs, exports 138,705,000 francs. Governor: Jean Capagorry.

REYNOLDS FOUNDATION, Inc., Z. Smith. A foundation established in 1936 for charitable and civic purposes within the State of North Carolina by the brother and sisters of Zachary Smith Reynolds, deceased. The income from the beginning of the foundation has been used primarily for a campaign to control venereal disease in the State Annual grants have been made to the North Carolina State Health Department for this purpose. The contribution for 1946, as in 1945, was $200,000 The book value of the principal of the Trust, as of June 30, 1946, was $10,182,695.85, which was a little less than its approximate market value. The Trustees are W. N. Reynolds, President; Richard J. Reynolds, Mary Reynolds Babcock, Nancy Reynolds Bagley, Charles H. Babcock, Henry W. Bagley, L. D. Long, W. R. Hubner. Secretary, Stratton Coyner, Winston-Salem 3, North Carolina.

RHODESIA, Northern. A British protecorate in southern Africa, grouped with British Central Africa territories Area, 290,320 square miles. Population (1943 estimate), 1,385,386. Capital, Lusaka. The protectorate is administered by a governor with the aid of an executive council and a legislative council The terrain is mostly high plateau country and mineral products (copper, zinc, cobalt, vanadium, lead, mica, gold, and silver) are the important resources Some agriculture is carried on, with maize, tobacco, wheat, and cattle as the chief products of the land.

RHODESIA, Southern. A British self-governing colony in southern Africa, grouped with British Central Africa territories. Area, 150,333 square miles. Population (1941), 1,453,000. Capital, Salisbury The colony has a responsible government, headed by a governor who is assisted by an executive council and a legislative council of 30 members. The latter is elected for a five-year term by British subjects over 21 years of age, subject to certain qualifications. The constitution limits the powers of the legislative council with respect to appropriation and taxation bills.

The results of the election, which were announced at the end of April, showed that the United Party had lost its clear majority in the legislative council of 30, but remained the largest party. The United Party secured 13 seats, the Liberals 12, the Rhodesia Labor Party 3 and the Southern Rhodesia Labor Party 2. Sir Godfrey Huggins, the United Party prime minister, said that results meant that his government should be continued.

The products of the soil are diversified and economically important. Cattle, sheep, pigs, tobacco, citrus fruits, and dairy produce are high on the list. Mine products include gold, asbestos, chrome ore, tungsten, and tin. Secondary industries reported a wage bill of £3,270,000 in 1932, a rise of 43 percent over 1938. The country's import trade has always been predominantly with the United Kingdom, with the Union of South Africa second; but the United Kingdom's share dropped from 45 percent in 1939 to 37 percent in 1944. Outside the Empire the United States was by far the most important source of supply, with an increase from 10 percent in 1939 to 16 percent in 1944. Exports of £15,803,088 in 1944 exceeded imports by £3,836,456. Governor and Commander in Chief, Admiral Sir Campbell Tait, appointed in 1944.

ROADS AND STREETS. Road construction in the United States dropped during the war years from 12,936 miles in 1941 to 4,011 in 1945, and then took a sharp fall to 2,964 miles for the fiscal year ending with June, 1946. It included 991 miles of the Federal-aid road system, 294 of secondary or farm-to-market roads, 1,673 of access roads to war factories and plants, and 6 miles of miscellaneous construction. In addition, 29 grade crossings were eliminated. The total cost for all completed work was $103,812,655, of which $76,448,942 (74 percent), was paid by the Federal government.

Plans were approved for 11,450 miles to be built in 1946–47. Much of the existing system needs to be overhauled and improved or rebuilt, having been damaged by heavy loads and heavy traffic, while at the same time repair and maintenance were of necessity neglected. The return to active construction has not been as rapid as expected, owing to shortage of labor and to such economic conditions as high prices, shortage of materials and equipment, and problems of labor and wages.

Of the total 334,534 miles of public road, 22,944 are unsurfaced. The surfacing of 311,590 miles is approximately as follows: soil surfaced, 3,050 miles; gravel or stone, 50,644 miles; various bituminous compositions, 150,508; bituminous concrete and slag, 22,752; cement concrete, 81,024 miles; brick, 1,390 miles. In accordance with the increasing speed and volume of traffic on the main roads, more attention is being given to the effective lighting of such roads, in the interest of safety and convenience. In September, President Truman appointed a committee on highway safety, composed of representatives of various Federal departments and bureaus. Another important line of study is the decrease in speed and loss of time of heavily loaded trucks on steep gradients.

In preparation for postwar work, Congress passed a law in 1944 authorizing $500,000,000 annually for the first three years to assist the States in highway improvement. It also required the designation of a national interstate highway system of not more than 40,000 miles, by joint action of the

State highway departments and the Federal Public Roads Administration. With the uncertainties of prices and supplies, bids for road construction naturally tended to increase, thus limiting the amount of work that could be done for funds available. In many cases bids have been rejected as too high.

An important development is the extension of major highway routes through cities in the form of expressways, as the most serious traffic problems are in and near cities. Such thoroughfares are not the responsibility of the cities alone but are links in the general highway system, for which reason the government is now sharing in their costs to the extent of $125,000,000 in 1946, in 1947, and in 1948. Many difficult problems are involved, especially in limiting access to these high-speed streets. There are also by-pass or circumferential roads, to enable through traffic to keep out of cities, and these are planned to total 5,000 miles of the interstate highway system, as definitely mapped out in 1946. In that year also progress was made by county, State, and Federal authorities in planning the authorized system of secondary or farm-to-market roads, all integrated with the interstate system of main roads.

Bridge work is an increasingly large part of highway work, as the number of bridges is enormous, and many of them are not adapted to carry such loads as are now imposed upon the roads. Grade separation works involve bridges for both railways and roads. Another auxiliary work is in the landscaping of the roads and the provision of rest areas and safety turnouts. Of immediate necessity is the renewal of maintenance work on the roads, for the benefit of the paving and for the riding comfort.

HIGHWAYS, MOTOR VEHICLES, MOTOR FUEL CONSUMPTION, AND TAXES, BY STATES

(As issued in 1946 by the Public Roads Administration)

State	*State-Controlled Highways (1945)* Total Mileage	Surfaced Mileage	*Number of Motor Vehicle Registrations (1945)* Total	Automobiles (including taxicabs)	Buses	Trucks and Truck Tractors	*1945 Motor-Fuel Consumption 1,000 gallons*	*Motor-Fuel Tax Receipts (1945) 1,000 dollars*	*Tax Rate per Gallon (cents) 1946*
Ala.	6,954	6,849	359,237	279,408	3,356	76,473	294,537	17,371	6
Ariz.	3,820	3,209	143,017	113,001	554	29,462	136,103	6,273	5
Ark	9,753	9,278	275,221	195,547	1,103	78,571	215,503	12,586	6 5
Calif	13,717	13,389	2,854,662	2,488,351	6,033	360,278	4,237,360	58,867	3
Colo	12,258	10,420	342,425	269,812	839	71,774	296,563	9,256	4
Conn	2,880	2,880	505,385	433,784	2,201	69,400	300,938	7,930	3
Del	3,854	3,036	68,316	54,707	400	13,209	55,553	2,041	4
Fla.	8,605	8,290	518,185	420,388	2,286	95,511	427,795	25,486	7
Ga.	13,808	9,443	523,196	418,566	3,249	101,381	419,972	23,173	6
Idaho	5,168	4,319	150,570	111,872 [b]	206	38,492 [b]	112,947	6,134	6
Ill	11,856	11,837	1,721,060	1,505,477	2,993	212,590	1,299,229	37,666	3
Ind	10,395	10,390	983,767	829,046	7,330	147,391	742,052	25,889	4
Iowa	9,703	9,670	692,989	589,380	1,200	102,409	594,016	19,620	4
Kans	9,885	9,453	600,471	475,216	490	124,765	494,304	8,918	3–4
Ky.	10,153	10,116	435,007	351,269	2,507	81,231	367,508	14,212	5
La	18,505	15,788	404,253	322,749	3,248	78,256	316,901	19,538	7
Maine	9,348	9,171	207,069	155,741	893	50,435	145,726	5,209	4
Md.	4,480	4,462	458,676	385,486	2,398	70,792	329,311	11,518	4
Mass.	1,917	1,917	858,973	743,799	5,471	109,703	599,125	16,333	3
Mich	9,471	9,259	1,453,573	1,303,512 [b]	1,683	148,378 [b]	1,171,630	29,003	3
Minn	11,237	11,230	749,553	632,476	1,861	115,216	543,029	20,552	4
Miss.	6,349	6,313	263,296	188,695	3,003	71,598	236,342	12,992	6
Mo	16,162	16,131	854,291	697,168	3,829	153,294	594,196	10,971	2
Mont	8,429	7,212	156,885	108,625	554	47,706	127,154	6,433	5
Neb	9,236	8,891	405,841	330,753	693	74,395	264,182	12,426	5
Nev.	5,591	3,400	45,936	36,286	145	9,505	51,152	1,574	4
N H.	3,611	3,606	128,316	96,074	654	31,588	75,619	2,783	4
N J	2,127	2,004	1,019,586	865,558	5,844	148,184	973,783	20,297	3
N M.	9,542	6,979	118,385	87,086 [c]	1,524 [c]	29,775	130,045	5,536	5
N Y.	14,198	12,778	2,329,995	2,016,831	9,101	304,063	1,499,917	53,163	4
N C	61,424	35,694	605,807	502,530	2,856	100,421	487,099	26,446	6
N D	7,095	6,646	180,890	131,468	160	49,262	186,742	2,833	4
Ohio	18,454	18,421	1,905,072	1,702,501	3,039	199,532	1,403,259	48,643 [d]	4
Okla	9,966	9,202	504,481	392,541	2,044	109,896	573,066	21,898	7 5
Ore.	7,082	6,819	414,389	330,770	1,218	82,401	282,898	13,509	5
Penn.	40,840	34,866	1,960,634	1,674,395	7,521	278,718	1,263,479	47,674	4
R I	881	865	178,106	155,606	798	21,702	123,932	3,201	3
S C	13,799	8,368	335,520	278,146	1,882	55,492	237,083	13,355	6
S D	6,034	5,583	178,575	141,154	252	37,169	167,371	6,240	4
Tenn.	7,634	7,597	460,081	376,386	3,432	80,263	383,526	24,495	7
Texas	25,954	24,858	1,583,451	1,273,759	1,988	307,704	4,106,823	58,778	4
Utah	5,428	4,163	153,890	126,829	242	26,819	122,973	4,388	4
Vt	1,803	1,803	89,935	78,628	438	10,869	54,606	2,130	4
Va	47,162	35,809	548,329	456,400	3,124	88,805	414,306	20,094	5–6
Wash	6,354	6,022	614,027	509,831	1,834	102,362	423,884	18,588	5
W.Va.	33,187	15,565	284,362	222,090	1,328	60,944	195,776	9,175	5
Wis	10,006	10,006	819,752	675,148	1,886	142,718	575,695	21,489	4
Wyo.	4,124	4,020	82,422	61,826	393	20,203	76,271	2,701	4
D.C.			110,570	94,763	2,170	13,637	119,194	3,181	3
Totals	570,239	478,027	30,638,429	25,691,434	112,253	4,834,742	28,250,475	852,568	

[a] For states which did not segregate buses from other vehicles, the segregation of buses from other vehicles has, where possible, been approximated from other data available. [b] Taxicabs included with trucks. [c] Taxicabs and rentals included with buses. [d] Includes the proceeds of the regular 3 cents per gallon motor-fuel tax and the 1 cent "liquid fuels tax" which applies to practically the same gallonage. Liquid fuels tax collected on gallonage to which regular motor-fuel tax was not applicable ($7,000 in 1945) is not included.

Supplementary to maintenance is the clearing of ice and snow from the public roads, and there is increasing activity in a policy of keeping the roads open throughout the winter. In May, 1946, a highway safety conference was held in Washington. A survey of trucking traffic showed that the average load per truck increased from 3.6 tons in 1941 to 4.8 tons in 1945, while the frequency of heavy wheel loads also increased.

Surveys have been made also as to traffic capacity of city streets, in the interests of smooth and easy traffic movements combined with safety. The capacity seems to be about 600 to 700 vehicles per lane per hour, easily lowered to 400 by heavy cross traffic. But on an expressway, the figures may be 1,200 to 1,500 vehicles per lane per hour. More attention is being given to the matter of safety, and more is needed, as shown by the terrible records of traffic accidents. Divided lanes are a safety factor, as they prevent head-on collisions. But traffic and speed continue to increase. Accident prevention covers the mechanical condition of the vehicles, regulations and their enforcement, education of drivers, design of road and its paving, and the provision of adequate signs and lighting.

Practically every State and city has projects and plans for road and street improvement. As examples, California proposes relocation of the Bay Shore highway as a 6-lane freeway from San Francisco, having two 52-ft. roadways with a 20-ft dividing strip. Illinois plans a high-speed road along the Mississippi River, as part of a 2,500-mile route paralleling the river. Ohio plans a 295-mile toll road across the State as an extension of the Pennsylvania Turnpike to the Indiana line, and serving Cleveland and Toledo The New Jersey authorities plan a state-wide system of parkways connecting with New York City, and free from railroad crossings and drawbridges. In New York State, contracts have been let for the first sections of the 6-lane, 480-mile freeway from New York City to Buffalo and the Pennsylvania line, but the State has dropped its plan to make this a toll road.

Cities which plan urban expressways include Fort Wayne, Baltimore, Indianapolis, Atlanta, and Los Angeles, which is to have a four-level grade separation structure. Chicago has voted bonds for superhighways in the city and Cook County. Street work continues to be largely a matter of maintenance and repair of paving, together with the planning of new developments. However, attention is being given to prompt removal of snow and the mechanical sweeping and collection of leaves from the streets. Research includes extensive studies of soils and soil conditions as related to paving practice and materials.

Developments on the proposed road through Central and South America are of a limited and piecemeal character in the several countries to be traversed. The 3,300-mile Inter-American Highway from Laredo, Texas, to Panama City was pushed actively while German submarines were a hazard for shipping routes to the Panama Canal, but with that hazard removed the work has slowed down. Still less work has been done on the longer route from Panama City to Buenos Aires, 6,500 miles, with its great distances and physical difficulties. A group of oil companies in Venezuela have combined to build a 200-mile road from new oil districts to the port of Barcelona.

Mexico is improving its road system. Canada has taken over that part of the Alaskan Highway within its territory, as agreed when the United States built the road. But trucks in U.S. commerce are allowed to go through in bond. There is a limited bus service, but tourist traffic is not encouraged, as there are few filling stations, rest houses, or other facilities. Other road projects in Canada include a 380-mile road from Grimshaw, Alberta, to the new gold fields on Great Slave Lake, and from Quibell, Ontario, north to the Red Lake mining district.

In Europe, road and street work is largely in clearing wreckage and making repairs, much permanent work being deferred for conferences over city planning and highway planning. The controversy in England over freight handling by road and railway has been closed by the mutual adoption of regulations, and the government has withdrawn certain restrictions on long-distance trucking. The present socialist government, however, plans to take over the railways, road traffic, and inland and coastal navigation. As to London, the government's Ministry of Planning has suggested that its revised street system should be designed to carry double the prewar traffic.

One project in France is a 150-mile high-speed road between Paris and Lille, having two 2-lane roads with a 25-ft. separating strip. In 1946, Switzerland completed the first motor road built across the Alps, 30 miles in length and utilizing the Susten pass. It rises from a 2,000-foot elevation to a summit elevation of 7,000 feet in a tunnel and then drops to 4,200 feet. Maximum grades are 8 percent, and minimum curves have a 60-foot radius. Both Russia and China are reported to have ambitious plans for highway systems.

E. E. Russell Tratman.

ROCKEFELLER FOUNDATION, The. Chartered in 1913 for the permanent purpose of "promoting the well-being of mankind throughout the world." The present program of the Foundation is concerned with the extension and application of knowledge in certain definite fields of the medical, natural, and social sciences, the humanities, and public health. Except to a limited extent in public health, the Foundation is not an operating organization. Its activities are confined to the support of other agencies and to the training, through postdoctoral fellowships, of competent personnel in the various fields of knowledge.

In the field of medical science the Foundation's interest centers mainly on research and teaching in the sphere of nervous and mental diseases and on the improvement of medical services Its appropriations in 1946 for work along these lines included $89,100 to Tavistock Clinic, London, for research and teaching in psychiatry; grants to the University of Cambridge for research in neurophysiology ($60,750) and in psychology ($44,550); $50,000 to McGill University for research in brain chemistry; $18,200 to the University of Zurich for research in nervous and mental diseases; $15,000 for graduate teaching in psychiatry under the supervision of the Director of the Neuropsychiatry Consultants Division of the Office of the Surgeon General of the Army Service Forces; $22,275 to the University of London for research in problems of human heredity; grants for research in endocrinology to Columbia University ($30,000), McGill University ($30,000), and the Massachusetts General Hospital ($12,000); $78,500 to the National Health Council for a program in the coordination of voluntary health agencies; $10,000 to the University of Michigan for the expenses of holding an institute for teachers of preventive medicine.

In the natural sciences the program is concerned chiefly with experimental biology. Appropriations in 1946 included $150,000 to Eidgenössische Tech-

nische Hochschule, Zurich, for research in organic chemistry; $50,000 to the California Institute of Technology for combined programs in biology and chemistry; $30,000 to Washington University, St. Louis, for research in experimental embryology and general physiology; $19,000 to the University of Oxford for research in antibiotics; $25,000 to Duke University for research on the chemical and physicochemical properties of proteins; to the Centre National de la Recherche Scientifique (Paris) $250,000 for allocation to about 35 of the leading natural science laboratories of France for special equipment, and $100,000 for the expenses of attendance of non-French European scientists at a series of small conferences at French institutions; $50,000 to the National Academy of Sciences (Washington, D.C.) for underwriting, up to one half, the expenses of delegates from various foreign countries to meetings sponsored by the Academy and the American Philosophical Society; $100,000 to the Massachusetts Institute of Technology for a study of electronic computation.

In the social sciences, studies of international relations, and postwar problems receive major emphasis. Some of the 1946 appropriations included $300,000 to Stanford University toward the preparation of an international history of food and agriculture during World War II; $173,000 to the Pacific Council of the Institute of Pacific Relations for research and general expenses; $139,000 to the Council on Foreign Relations (New York) for a history of foreign relations during World War II, $75,000 to Brookings Institution for research in international relations; $72,700 to the University of Minnesota for research on intergovernmental relations; $70,000 to the Geneva Institute of International Studies for its general budget; $42,500 to the Canadian Institute of International Affairs for its budget; $33,750 to the Institute of International Affairs (Stockholm) for research and popular education in international problems; $82,500 to Miami University (Ohio) for studies of population redistribution in the United States, $58,500 to the University of Wisconsin for research in housing; $43,800 to Yale University for a study of labor market structure and wage determination; $10,000 to the University of Pennsylvania for a study of war experience in labor relations; $16,177 to the United Nations Information Office (New York) toward the cost of reproducing the documentation of the Preparatory Commission and of the session of the First General Assembly of the United Nations.

In the field of the humanities assistance is given to programs which tend to raise the general cultural level and to promote cultural interchange between countries. In 1946 the American Council of Learned Societies received $250,000 for its general support, $150,000 for fellowships in the humanities, and $35,000 for the use of its Pacific Coast Committee for aid to work in the humanities along the Pacific Coast; $75,000 was granted to the University of Wisconsin for the development of a program of research and teaching on the materials of American civilization; $25,000 to Northwestern University for teaching and field studies in American culture; $33,000 to the University of Oslo for the development of work in the humanities; $200,000 to Stanford University for the support of the Hoover Institute for Slavonic studies; $42,500 to Princeton University for Near Eastern studies; $12,200 to the University of Stockholm for the development of Far Eastern studies in Sweden, Norway, and Denmark; $30,000 to the American Library Association for interchange of library personnel and materials by its International Relations Board; $9,000 to the Ministry of Public Education of Guatemala toward the development of the National Archeological Museum.

The Foundation appropriated $2,200,000 for public health work by its International Health Division in 1946. This work included research on a number of diseases, among them malaria, typhus fever, yellow fever, influenza, diphtheria, and syphilis; demonstrations in the control of certain diseases in their environments; studies in nutrition and mental hygiene; cooperation with governments in the organization or improvement of important services of central or local health departments; and the development of public health education.

From the time of its establishment, until December 31, 1945, the Foundation expended a total of $351,055,791.53. Its assets, as of December 31, 1945, were $147,064,222.

The president of the Foundation is Raymond B. Fosdick; the secretary, Norma S. Thompson. The offices are at 49 West 49th Street, New York 20, New York.

ROCKETRY AND JET PROPULSION. Development of jet propulsion power plants of both the gas turbine and rocket types was pursued with vigor on both sides of the Atlantic in 1946. From the nature of the designs which made their appearance during the year it was apparent that, although they followed the same basic principle, they reflected many variations in type, and it was difficult to determine any specific trends

Fundamentally the gas turbine consists of a compressor and turbine which drives it, the turbine being driven by compressed and heated gases. Power not needed to drive the compressor may be exhausted as a jet or applied to a propeller shaft or both in almost any desired proportion. The efficiency of a gas turbine system is the product of the efficiencies of the compressor and turbine. An increase in either yields a high increase in overall efficiency. It was toward the development of higher compressor efficiencies that most design effort was directed in the types appearing in 1946.

In earlier years of gas turbine development, British thought tended toward centrifugal compressors, although Air Commodore Whittle's original patent application included an axial flow stage or two to secure complete coverage. Early German designs were of the axial flow type. In America, General Electric pioneered the centrifugal, and Westinghouse the axial flow compressors.

But 1946 designs found General Electric trying axial flow compressors in its T G series and revealed that British manufacturers had been thinking in the same terms, finding combinations of both axial and centrifugal types, improving centrifugal types by double impellers, and even adding heat exchangers to their design All these developments represent the continuous search for greater efficiency. They also mean that the gas turbine is becoming a more complicated mechanism but still less so than the reciprocating type of power plant.

Several design groups became tremendously interested in the possibility of compounding piston engines and gas turbines and much thought was given to this ramification of power plant design. Studies of various combinations showed gratifying increases in overall power output obtainable by utilizing the energy wasted in the piston engine exhaust through the use of a turbine. The power now wasted in exhaust gases can be used by way of a turbine to drive accessories which consume appreciable amounts of engine output or it may be returned directly to the crankshaft.

So attractive has become the possibility of compound engines that many designers now believe that large reciprocating engines will not be entirely replaced by gas turbine power plants in the years that lie ahead As piston engines grow larger and operate at higher pressures the advantages of compounding are greatly magnified. Future large engines may well be of this type.

It is unlikely that there ever will be an ultimate engine So many different tasks must be performed by so many types of aircraft that there probably will be work for which each type, or combination of types, is most efficient.

Jet engine production fluctuated monthly during the year but in September, 88 engines of this type were manufactured, having a combined thrust of 352,000 lb The 132 reciprocating engines made during that month aggregated only 227,000 h.p.

Much design effort was expended in 1946 toward the development of aircraft using gas turbines of various types and toward the adaptation of existing reciprocating engine installations to turbojets, turboprops and other turbine types. An analysis of new Army Air Force contracts early in November showed that, of 41 types on order, only one fighter and very few bombers were to be powered by reciprocating engines The Navy Bureau of Aeronautics, however, had only two jet fighters and one jet-reciprocating bomber on order, although other jet types were under contemplation by the Navy at that time.

Among the Army jet planes on order are· Lockheed, P-80 Shooting Stars and P-90 jet-rocket fighter; Consolidated, P-92, a sonic speed rocket powered plane and B-46 jet bomber; North American, P-86 jet fighter and B-45 jet bomber; Republic, P-91 rocket powered sonic speed plane; McDonnell, P-88 and P-85 jet fighters, the latter designed to be carried in the B-36 bomber; Northrop, P-89 jet fighter and B-49, a jet version of the B-35 flying wing, Curtiss-Wright, P-87 jet fighter and XC-113, a project version of the C-46 transport; Boeing, B-47 jet bomber; and Martin, B-48 jet bomber Among the Navy jet planes on order were the McDonnell Phantom FD-1 and FD-2 and a jet-reciprocating bomber by Martin.

Design studies of future transport aircraft revealed important possibilities in turbine powered transport planes. A plane of this type powered by four Rolls-Royce Derwent V engines, developing 14,000 lb of thrust, was among those projected. This 40-passenger machine would have a gross weight of 52,500 lb. Such a plane could fly nonstop from New York to Chicago in 1 hr. 45 min.; with one stop from New York to Miami in 3 hr. 20 min.; and with two stops from New York to Los Angeles in 5 hr 55 min Operating cost for this hypothetical plane was calculated at slightly above one cent per seat-mile or about one-half of that of the Douglas DC-3 type which was standard airline equipment up to the end of the war.

Airliners having speeds of 500 m.p h were envisioned by Douglas engineers. Their predictions were based on experiments with a design in which the parasitic dead air nearest to a plane's surfaces could be removed through slits in the structure and sucked into the plane's jet engines.

Speeds as high as 600 m p.h. were foreseen by executives of American Airlines who have ordered British jet engines for comparative tests against American types to determine which are best suited for their future equipment needs.

Gas Turbine Design Abroad. Details of Britain's most powerful production turbojet, the Rolls-Royce Nene (RB-41), were released early in 1946. The Nene is a development of the original Whittle centrifugal compressor type (See YEAR BOOK, 1945). It differs essentially from American engines of this variety (General Electric I-16 and I-40) in that its compressor is two-sided instead of single-sided. The double impeller compressor is capable of handling more incoming air for a given diameter. Since the overall efficiency of a turbojet is the product of the efficiencies of the compressor and the turbine, the Rolls-Royce Nene is a highly efficient power plant. In this manner the designers have produced an engine capable of a thrust output equivalent to a single side compressor engine of very much larger diameter or frontal area.

The Nene is the most powerful jet propulsion engine in production in England at the present time. Plans are underway to produce it under license in this country. It has a sea level static thrust of 5,000 lb. at 12,300 revolutions per minute Its overall diameter is 49.5 in. and its weight 1,550 lb.

The double sided compressor impeller has 29 vanes per side with separate forged aluminum machined guide vanes. Behind the compressor impeller is a smaller single side-cooling impeller which forces air through manifolding to the center and rear bearings and the turbine disk. Temperatures at these points are critical in gas turbine engines.

The single stage turbine disk is machined from solid steel and 54 blades are set into it by the "Christmas tree" method of attachment. Blades are of Nimonic 80 steel, a new high temperature alloy developed by British metallurgists.

The Nene is a through-flow type having nine combustion chambers. Igniter plugs are used in starting, after which the ignition system is cut out automatically and flame igniters are used. The lubrication system represents a departure from earlier Rolls-Royce practice in that a wet sump system is used.

A combination of centrifugal and axial flow compressors is found in the British Theseus 1. Turboprop engine, a British gas turbine with propeller drive designed for installation in long range airliners having speeds of 300–400 m.p h. Another unique feature of this design is the embodiment of a heat exchanger which contributes substantially to the low fuel consumption of the engine. These unusual design features indicate the many possible combinations of types of jet propulsion engines. In the Theseus the unusual features result in a fuel consumption comparable to that of reciprocating engines of equivalent power output and a longer period of operation between overhauls than that of most other turbine types.

The airflow pattern starts with the nine-stage axial flow compressor, then to the single stage centrifugal compressor unit. When it leaves the centrifugal unit it has been compressed 5 times (at 20,000 ft). The air then passes through the heat exchanger, where its temperature is raised by the use of exhaust gases, and thence through the combustion chambers. After leaving the combustion chambers it acts upon a two-stage turbine which drives the compressors and upon an independently mounted single-stage turbine which drives the propeller. From the turbines it passes to the jet nozzle by way of the hot side of the heat exchanger. By this ingenious method the high temperature outgoing air heats the cooler compressed air at the beginning of the air flow cycle.

At 300 m.p.h. approximately 80 percent of the power available is used to drive the propeller. A propeller pitch control mechanism is used to maintain the speeds of the two turbine units at a constant ratio.

The heat exchanger unit, which weighs 500 lb., is optional in the design of the Theseus 1., its weight being justified where the power plant is to be installed in a long range airplane. The unit consists of a multiplicity of straight tubes placed axially to reduce resistance losses in the passage of the hot gases. Tubes are arranged in 16 sets, eight of which are outlet, and the remainder inlet, with each group separated by headers. The compressed air flows radially inward and then reversed to the outlet headers.

Six main bearings are used in the Theseus; two for the compressor assembly, two for the propeller shaft, and two for the propeller turbine and its drive shaft. An 8.4:1 epicyclic reduction gear is used for the propeller drive, providing a propeller speed of 1,070 r.p.m. at maximum power.

The Theseus 1. has a diameter of 48 in. and a dry weight of 2,130 lb. Its power at sea level is 1,950 b.h.p. plus 500 lb. of thrust from the jet.

Still another combination of compressor types was found in the German Heinkel Hirth O11. Turbojet which was almost ready for production when the war ended. German designers sought higher compressor efficiency in this type by three units, consisting of a frontal single stage axial blade row, a diagonal compressor and finally a normal three stage axial unit. All of these are mounted on the same shaft and driven by a two stage turbine.

Air leaving the first axial stage is constricted by a fairing before it reaches the wide blades of the diagonal compressor. Fuel is fed into an annular combustion chamber by 16 equidistant nozzles. Four ignition plugs are used and provision is made for two others. The two rows of hollow turbine nozzle vanes and the turbine itself are cooled by air bled from the compressor.

Static thrust at sea level of the O11 at 10,200 r p.m. is 2,860 lb. Maximum diameter is 34.4 in. Total dry weight, including accessories, is 2,085.2 lb , of which 112.1 lb. accounts for the accessories which include a Reidel starter, as used on the Junkers Jumo 004 and BMW 003 engines; Bosch or Siemens generator; a high pressure Barmag pump; air compressor and tachometer.

Rocket Engines Installations. American rocket engines came into widespread use in experimental aircraft and guided missiles during 1946. Details of the 6000 C4 type, developed by Reaction Motors Inc., were released by the Navy. This power plant is a four cylinder unit weighing 210 lb. and developing 6,000 lb. of thrust Fuel is liquid oxygen and alcohol. This fuel combination requires electrical ignition and presents complex storage problems in the case of the liquid oxygen. Experiments were conducted with many other fuels including aniline and various acids.

The 6000 C4 was the power plant of the Bell XS-1 experimental supersonic airplane which was tested early in December at the Muroc Army Base.

The XS-1 was developed under Army Air Force sponsorship by Bell designers from basic data accumulated during a decade of basic research by the National Advisory Committee for Aeronautics. Another similar project is under development by Douglas for the Navy.

Purpose of the transonic aircraft program is to penetrate the barrier represented by the speed of sound with a man-carrying aircraft. Some scientists in Germany and England, as well as some of our own, have thought such an achievement impossible, but a small group of less conservative thinkers in all three countries have attempted it. The German work, which was conducted throughout the war by students under the leadership of Dr. Alexander Lippisch, was never completed. In England, the program based on the Miles M-52 airplane, has been postponed. In this country the XS-1 project was delayed by the death in a conventional plane of Pilot Jack Woolams who lost his life while preparing to compete in the 1946 National Air Races. Woolams had been training for the supersonic flights in which the XS-1 plane was to have been carried to the maximum speed and altitude of a specially adapted B-29 bomber and then released. With a 4-minute fuel supply it was to have passed through and beyond the hazardous transonic speed range between 600 and 900 m.p.h. Former Navy Pilot Chalmers H. "Slick" Goodlin made the first flight in December. The initial test was made under partial power and did not reach the transonic speed range. A series of approximately 20 flights will be made before full power is used under present plans.

Other rocket propelled aircraft and a number of guided missiles were under development during the year. Rocket propelled missiles or aircraft show a marked superiority over other types at both very short and very long ranges. Work is also underway on multi-stage rockets which can be timed to fire in succession. A rocket traveling outside the earth's atmosphere could reach such a speed that centrifugal force would balance the pull of gravity. Then the range is infinite without further expenditure of energy or mass. This fact opens up the ultimate possibility of interplanetary travel and the near term prospects of travel far beyond the earth's atmosphere.

Many methods of jet propulsion were studied by the National Advisory Committee for Aeronautics at its Cleveland engine laboratories during the year. Research on ram jets, rotojets and intermittent duct or resojet engines was conducted at many government and private laboratories. Of tremendous practical importance was the commercial availability during 1946 of the Jato (jet assisted take off) unit developed during the war by Aerojet Inc. Addition of four of these units to a standard Douglas DC-4 airliner increases its payload 7,000 lb. by permitting overload at take off. This immediately practical use of rockets has an important significance in air transport economics.

LESLIE E. NEVILLE.

ROSENWALD FUND, The Julius. During the 29 years since its establishment in 1917 by Julius Rosenwald, the Fund has expended approximately $20,000,000, this being all its income from year to year and about seven-eighths of its principal fund. The Trustees are required to expend all funds within 25 years of the death of the founder, that is, before Jan. 6, 1957. At the close of the fiscal year June 30, 1946, the assets of the Fund had a value of approximately $2,500,000. The chief program of the Fund during its early years was aid in the building of rural public schools for Negroes. The main programs in 1946 were: (1) Improving the content and quality of rural education in both white and Negro schools in the South; (2) fellowships for Negroes and for white southerners; and (3) efforts to improve race relations, especially the relations between white and colored citizens throughout the United States. During the year 1945–46 the Fund expended $716,500 upon these and related programs.

ROWING. A heavy band of sweep-swingers from Wisconsin came East in the Spring of 1946 to capture honors in the first big intercollegiate regatta held since 1941. Competing at Annapolis for the

championship of the Eastern Association of Rowing Colleges, the Badgers won by a length from Navy with Columbia, Rutgers, Cornell, Penn, Princeton, M.I T. and Harvard trailing.

Paced by Carl Holtz, an ex-bombardier with 42 missions to his credit, the cardinal-clad oarsmen from the dairy country covered the mile and three-quarter course over a choppy, wind-swept Severn in 9:12⅘, time that Col. Howard Robbins, referee, hailed as "almost incredible for this river."

Following other victories in Eastern waters Wisconsin traveled to Seattle where eight varsity crews raced in the Lake Washington international regatta—a new event on the nation's sports schedule. But the Badgers met more than their match on the coast for Cornell, a powerful crew that couldn't find itself earlier in the season, came back to triumph before 200,000 persons, the largest crowd ever to witness a sports event in the Pacific Northwest.

M.I.T., Washington, and favored Wisconsin—dragging its unbeaten record behind it—were next over the line, followed by Harvard, California, Rutgers and British Columbia.

Yale and Harvard resumed their annual classic with the same result that had become monotonous in the late prewar years—a sweep for Harvard. When the Crimson varsity crossed the finish line it marked the eighth straight victory over the Elis. Perhaps the sting of these many setbacks annoyed New Haven residents for late in the year Yale signed Allen Walz, Wisconsin's successful coach, to help bring the Bulldog back to the head of the river.

Oxford defeated Cambridge by three lengths in their first formal meeting on the Thames since 1939, a happy, peace-freed crowd of 500,000 cheering them on from Putney to Mortlake.

England also held its first full postwar Henley with the major prize, the diamond sculls, going to Jean Sephariades of France when he defeated 19-year-old John Kelly, Jr. of the United States Navy. Sephariades' powerful lunge strokes proved too much for the Philadelphian, who was severely handicapped by the lack of training time.

Kelly, son of a former United States champion and Olympic winner, again was the outstanding star of America's scullers, retaining his crown in the colorful Canadian Henley and ousting Art Gallagher of Philadelphia as champion in his first bid in our national championships, which had been suspended during the war.

Joe Angyal of Brooklyn ranked second behind Kelly with three victories in the People's regatta on the Schuylkill and two in the United States title tests.

THOMAS V. HANEY.

RUBBER. Thrust into great prominence during the war as a critical raw material for both military and home front use, rubber came back into its own as a factor in the civilian economy during 1946 in the form of more than 50,000 consumer and industrial products.

The first full year of peace saw rubber consumption in the United States soar past the million-ton mark for the first time in history. Consumption, estimated by the Rubber Manufacturers Association at 1,026,000 tons, was 54 percent ahead of 1940 (the best previous peace time year) and more than 100 percent above average annual consumption for the ten years from 1930 to 1940

By the year's end, the value of end products produced by the Rubber Manufacturing industry in this country had passed the two billion dollar mark. These products included tires and inner tubes, rubber mechanical goods, rubber footwear, rubber sundries, druggists', surgical and hospital goods, rubber coated fabrics and protective clothing, rubber flooring, hard rubber products, rubber heels and soles, latex foam and chemically blown rubber sponge, rubber sports wear and rubber thread.

To achieve production at these levels, rubber manufacturers had expanded employment from 150,000 to 300,000 factory and office workers between 1940 and 1946.

Moreover, the industry used at or near capacity the vast plant expansions of the wartime period. This expanded capacity (up 63 percent in tires and tire materials, for example) was accounted for in the form of new factory space, new milling machinery, molds, and curing equipment.

The Raw Materials. Prior to the war, American manufacturers were almost entirely dependent upon foreign sources for rubber In 1941, for example, the industry consumed less than one percent of its total requirements in manufactured rubber. The balance was natural rubber—most of it from the Far East.

A vast new network of copolymer plants mushroomed American production of manufactured rubber to 830,780 tons by 1945. It was the availability of this rubber, born of the most urgent wartime needs, that enabled American manufacturers to score a bulls-eye on their reconversion target in 1946.

Using rubber at the rate of more than 250,000 long tons a quarter, the industry had only 33,294 tons of natural rubber available in the first three months of 1946 to satisfy the greatest backlog of civilian orders in its history.

Only the abundance of high quality manufactured rubber saved the industry's reconversion program from bogging down completely. The importance of manufactured rubbers in this respect was evident in the figures showing the industry's consumption through October 31, 1946. For the ten month period the industry used 201,410 tons of natural rubber, as against 645,350 tons of manufactured rubber. The latter category included 537,262 tons of GRS, general purpose type rubber; 67,081 tons of GRI, butyl type rubber; 36,122 tons of GRM, neoprene type rubber; and 4,885 tons of GRA, or the so-called N-type rubbers.

Easing supplies of natural rubber as the growing areas of the Far East gradually came back into production enabled the government to relax the stringent wartime use patterns which had held manufacturers to the overall use of 12 percent natural rubber and 88 percent manufactured rubber.

By the end of 1946, this pattern had been relaxed to allow the use as an overall industry average of 37 percent natural rubber and 63 percent manufactured rubber. In some products the Civilian Production Administration and later the Office of Temporary Controls permitted the use of greater amounts of natural rubber in some products, while specifying proportionately greater amounts of manufactured rubber in others where its special properties were desirable for superior performance.

Price. Government controls over rubber continued into 1947, both with respect to buying, allocation to manufacturers, and specification, and with respect to price. The copolymer plants remained under government ownership and the price of GRS continued at 18½ cents a pound, although average costs—exclusive of amortization and administration—dropped from slightly more than 23 cents a pound in 1945 to less than 14 cents a

pound in 1946. In some plants costs of producing GRS had been shaved to below 12 cents a pound by the year's end.

The price of natural rubber to manufacturers was held by the government to 22½ cents a pound throughout the year. This was the pegged price of the wartime period. The government through the Rubber Development Corporation, its procurement agency, bought all of its first half requirements and an additional 200,000 tons of Far Eastern rubber in the second half at 20¼ cents a pound. Under a buying contract entered into with the British and Dutch covering the period from June 30, 1946, the government paid 23½ cents a pound for approximately 145,000 tons of natural rubber in the third quarter, for top grade rubber.

Trading in rubber futures was resumed on the London Market in November.

Forward Supply. The importance of adequate supplies of manufactured rubber if world requirements of rubber goods are to be met in 1947 and 1948 was underscored by the International Rubber Study Group at the year's close.

This group, which includes United States, British, Dutch, and French government representatives, met at The Hague in November.

Assuming high economic activity in Western countries, as well as reasonable stability in Far Eastern political conditions, particularly as applies to Indonesia, world production and consumption of natural and manufactured rubber was estimated as follows:

Natural rubber production for 1946—850,000 tons; 1947—1,200,000 tons; and 1948—1,450,000 tons.

Disregarding stockpiles, world consumption for both natural and manufactured rubber was forecast as 1,600,046 tons for 1946; 1,700,047 tons for 1947; and 1,675,000 for 1948.

Representatives of The Netherlands spoke of 350,000 tons being available for export in Indonesia during 1947. It was further reported that 22,000 tons per month are now being produced in Borneo, Sumatra, and Java. French Indo-China is expected to produce a minimum of 30,000 tons.

A fourth meeting in Paris was tentatively arranged for the early part of next summer. Final decision as to time and place rests with the member governments.

Component Materials. Manufacturing records established in 1946 were achieved in the face of a year of recurrent shortages of component materials —in many cases so acute that the industry was only a matter of days away from widespread shutdowns. Priority assistance from the Civilian Production Administration in the release of scarce materials was helpful in averting production stoppages in some instances.

Most acute scarcities occurred in textiles. With the industry normally using more than 500,000 bales of cotton a year, rubber manufacturers were particularly handicapped by the short supplies of tire cord and scores of fabric constructions. Nor was it until just before the year's end that the government lifted controls on the use of rayon in rubber products.

Threat of production stoppages was also carried in the continuing shortages of soaps, resins, casein, beadwire steel and in some of the 1,300 odd chemicals used in the fabrication of rubber products.

New Types of Rubber. Under the urgent dictates of military necessity, the government limited the wartime output of general purpose synthetic rubber to the mass production of two GRS types. While this facilitated production of suitable rubber in quantity during the emergency, it tended to retard the quest for new and better polymers.

Since the war's end, research and development on new types of manufactured rubber have unfolded rapidly. At the present time the Office of Rubber Reserve has approved more than 360 experimental polymers and has granted authority for trial production of specified quantities of each for the large scale evaluation of processing and vulcanizing properties.

Eighty of the 360 polymers had been placed in substantial production by the end of 1946. Many of the experimental types were modifications of butadiene-styrene copolymers, resulting from the employment of new emulsifiers and coagulants in the polymerization process. Some of the others involved the replacement of either the butadiene with another diene or the replacement of the styrene with either substitute styrenes or other vinyl compounds.

The rubber manufacturing industry's rapidly growing research facilities, now valued at more than $25,000,000 and staffed by approximately 5,000 skilled scientists and technicians, expanded substantially in 1946. The year's end found technical journals describing research on synthetic rubber and latex in these laboratories as having already "reached the stage where new molecule building is almost a daily occurrence."

THE RUBBER MANUFACTURERS ASSOCIATION, INCORPORATED.

RUMANIA. A kingdom in southeastern Europe. King: Michael I, who ascended the throne upon the abdication of his father Carol II on Sept. 6, 1940.

Area and Population. The area of Rumania in July, 1945, was about 91,671 square miles and the population was approximately 16,409,367. This includes the restoration (March, 1945) of northern Transylvania (16,641 sq. mi.; pop. 2,573,000) from Hungary but is exclusive of Bessarabia and northern Bukovina which were recognized as parts of the U.S.S.R. and restored the Soviet-Rumanian frontier of June 28, 1940. Chief cities (estimated, 1945): Bucharest (capital), 984,619; Iasi (Jassy), 108,987; Cluj, 110,956; Timisoara, 108,296; Galati, 93,229.

Government. By royal decree of August 31, 1944, the Constitution of 1866, modified by that of 1923, was restored. On the decision of the Cabinet, legislative power is exercised by the King, pending new elections. A new Cabinet drawn from the Plowmen's Front, with Petru Groza as Prime Minister, was appointed on March 6, 1945.

Events. During the year the Government of Petru Groza, which enjoyed the confidence and support of Russia, consolidated its power and further weakened its opposition, so that it obtained a sweeping victory at the elections of November 19 The opposition looked to the western Allies for support in safeguarding their interests, and displayed special affection for King Michael, as a symbol of national sovereignty against foreign dictation. But the stability of the Government was acknowledged, and its prestige augmented, by the recognition accorded it by Great Britain and the United States, though these Governments repeatedly expressed dissatisfaction with the imperfect implementation of Rumanian engagements to introduce a fuller measure of democracy.

On December 26, 1945 an Allied Commission meeting in Moscow, consisting of Andrei Vishinsky, Russian Vice Foreign Minister, Sir Archibald Clark-Kerr, British Ambassador to Moscow, and W. Averell Harriman, United States Ambassador to

Moscow, agreed to require the Rumanian Government to broaden its composition by including as representatives of their respective parties one National Liberal and one National Peasant, both to be "suitable" and to "work loyally" with their Government, and further to pledge free elections and to guarantee freedom of press, speech, religion, and assembly. The Commission proceeded to Bucharest for discussions with King Michael and with Prime Minister Groza. It was the King's position that the Government should be regarded only as caretaker and that the Ministries of Interior and of Justice be put into other than Communist hands. It was understood that Iuliu Maniu and Constantine (Dinu) Bratianu, traditional leaders of the historical National Peasant and National Liberal Parties respectively, would be unacceptable to the Soviets, but it was confidently expected that Ion Mihalache or Nicolae Lupu, the two vice-presidents of the Peasant Party, and Constantine (Bebe) Bratianu, nephew of Dinu and Secretary General of the Liberal Party, would be appointed. Groza impugned their loyalty, however, and Vishinsky accepted his charges. Instead, two nonentities were appointed, Mihai Romniceanu for the Liberals and Emil Hatieganu for the Peasants. Hatieganu was a Rumanian chauvinist of the old school, with a fascist record, it was said that he was included only to discredit the western Allies by making it appear that a known fascist had been appointed only at their insistence.

The Commission completed its work on January 9, having received assurances that the historical parties would be represented in the Government, that elections would be held, and that civil liberties would be safeguarded. Difficulties, in part genuine, and in part contrived by the Groza Government for its own ends, obstructed the prompt fulfilment of these engagements Press censorship presented a real problem, for relaxation encouraged anti-semitic and pro-fascist writings, nevertheless controls were gradually reduced. Groza's persistent postponement of elections until the fall stemmed from political considerations. The new electoral law would enfranchise new groups favorable to the Left, and various devices, whose legitimacy the opposition naturally questioned, could be employed to weaken the bourgeois parties. The transformation of the *Uniunea Patriotilor*, formerly a conservative political organization, into the National Popular Party was an attempt to attract bourgeois support for the Groza Government. The sudden proliferation of small parties was apparently calculated to weaken the traditional opposition parties. Communist efforts to procure that the Socialists adopt a single electoral list with them were opposed by the Socialist leader Constantine (Titel) Petrescu, but in vain, and the single list was adopted. On the other hand Mihai Romniceanu and Emil Hatieganu who had been appointed to represent the major opposition parties in the Government as Ministers without Portfolio subjected Groza's policies to constant criticism. They complained that their parties were being suppressed, that the Moscow agreement was being violated, and that Government manipulation would make it impossible for a fair election to be held. This view was supported, with increasing warmth as the date of the election approached, by Iuliu Maniu, leader of the National Peasant Party, and by Constantine Bratianu, leader of the National Liberal Party. An upsurge of enthusiasm for the King was also an indication of opposition to the Government. On May 6 Ion Antonescu, Mihai Antonescu, and twenty-two others were put on trial as war criminals. The charge was based on Minister of Justice Lucretiu Patrascanu's decree law No. 312 of April 24, 1945, which included in the category of war criminals those who decided upon the declaration of war against Russia and her allies. The Government's indictment ran to two hundred pages, and it was evident that the guilt of the accused might have been proven in a fair trial; but the character of the trial as it was conducted, as well as its timing, made it plain that the Government was using the occasion to discredit Iuliu Maniu and Constantine Bratianu, who were on record as having had relations with the Antonescu regime. The Parties represented by these leaders as well as the Tatarescu Liberals had vigorously opposed Minister of Justice Patrascanu's electoral bill, which was promulgated in April. They had particularly opposed the granting of the franchise to military personnel, the lowering of the age limit, and the abolition of the senate by the provision for a unicameral legislature. The displeasure of the opposition was also aroused by Groza's manifestations of friendship for Hungary. Despite efforts by both Governments to improve Rumanian-Hungarian relations, the results seemed to be limited to gestures of intellectual cooperation, each people continued to cherish ill will for the other. It was to be expected that Rumanian foreign policy would follow lines agreeable to the Soviets. Nevertheless the policy of orienting Rumanian economy towards the Soviets and excluding the west was modified in the interest of procuring American capital for reconstruction. The Malaxa and the Ausnit interests, which had access to such capital, were given special facilities and exemptions. On October 2 the Rumanian Government ratified a clearing agreement with France providing for the exchange of French manufactured goods for Rumanian agricultural products and oil, to the amount of 400,000,000 francs.

Unlike the Bulgarian Government, which was similarly under Soviet influence, the Rumanian early received recognition from the Governments of Great Britain and the United States; but charges of failure to implement the Moscow agreement, upon which recognition was premised, were the basis of repeated representations by these Governments. On January 25 Mr. Burton Y Berry, United States political representative in Bucharest, was instructed to join the British in a statement that the two Governments would accord Rumania recognition if certain assurances were given. This move gave the Government great satisfaction and disheartened the opposition, who nevertheless continued to look to Great Britain and the United States to defend their position. On May 27 a United States note admonished the Rumanian Government for its failure to fulfil the obligations of the Moscow agreement On June 3 G Tatarescu, Vice Prime Minister and Minister for Foreign Affairs in the Groza Government, replied in a firm tone that conditions of order and liberty were satisfactory and that preparations for the election were proceeding in a satisfactory manner. On June 13 the British and American representatives notified the Rumanian Government that this reply was unsatisfactory. The political manipulations against which the opposition had protested and which had been the basis for the American and British notes proceeded unchecked, so that Communist controlled newspapers were able to announce on October 4 that 93 percent of Rumania's citizens were registered in the electoral lists. This announcement provoked Iuliu Maniu and Constantine Bratianu to charge that the lists had been grossly falsified and hence that no election based upon them could be

legitimate. The protests of the opposition leaders received wide attention abroad, and on October 28 Great Britain and the United States again directed notes to Rumania pointing out that Rumanians would not be able to vote freely in their election because of the coercive actions of their Government. This protest was rejected by the Rumanian Government on November 4 on the grounds that (a) since the elections had been agreed upon by the three powers meeting in Moscow, the Rumanian Government could not recognize separate protests by two of the powers, for Russia had not objected to the election procedures; (b) United States observations and recommendations constituted interference with the internal policy of Rumania and were incompatible with the rights of a free and sovereign state; and (c) the Rumanian Government would in fact fulfil the Moscow agreement, and the election would represent the will and aspirations of the Rumanian people. At the same time the Moscow radio charged that Anglo-American support had encouraged Rumanian reactionaries, even to the point of organizing and arming terrorist groups to hamper the Government.

Three days before the election both Great Britain and the United States warned Rumania that elections under prevailing conditions would be unacceptable. In the elections which were nevertheless held on November 19 the opposition won only 66 seats as against the 338 of the Government bloc, which were distributed as follows: Socialists, 78; Dissident National Liberals (George Tatarescu), 72; Plowmen's Front (Groza), 71; Communists, 70; National Popular Party (Government created middle class party), 26; Dissident National Peasants, 21. In addition the Government will have the support of ten other independents whom it endorsed. Approximately 5,000 persons called at the American mission in Bucharest to complain that they had not been permitted to register, and in consequence the building was picketed by adherents of the Groza Government. Both British and American authorities declared the elections fraudulent. An American note stated that extensive reports made it "abundantly clear that, as a result of manipulations of the electoral registers, the procedures in conducting the balloting and the counting of votes, as well as by intimidation through terrorism of large democratic elements of the electorate, the franchise was on that occasion effectively denied to important sections of the population." Accordingly the United States could not regard the requirements of the Moscow agreement as fulfilled. In Rumania the opposition declared it regarded the elections as void and demanded new elections. The position of the Government was that the elections represented the true will of the people, and that in consequence there was no longer need for the two opposition representatives in the Government as required by the Moscow agreement.

Production. About three-fourths of the population is engaged in agriculture. Rumania normally produces an export surplus of cereals, livestock and animal products. In 1945, 2,075,000 hectares were sown with wheat; 3,473,000 with corn; 697,000 hectares with barley; and 766,000 hectares with oats. The crop yielded by 1,885,000 hectares of wheat was 1,063,000 tons; 2,669,000 hectares of corn was 1,097,000 tons; 595,000 hectares of barley was 267,000 tons and 626,000 hectares of oats was 258,000 tons.

The total output of crude oil in 1945 was 4,636,000 metric tons and of natural gas, 1,774,000,000 cubic metres. Production of lignite in 1944 was 2,271,000 tons.

Foreign Trade. In 1944 foreign trade was valued at 62,191 million lei, with imports totaling 30,016 million lei and exports 32,175 million lei.

Finance. The budget for the year ending March 31, 1945 consisted of revenue of 222,170 million lei and expenditure of 252,170 million lei. By April 1, 1945, the public debt stood at 98,936 million lei. Notes in circulation, December 1945, totaled 1,102,535 million lei.

MOSES HADAS.

RURAL ELECTRIFICATION ADMINISTRATION (REA). An agency created under the Emergency Relief Appropriation Act of 1935 and transferred to the U.S. Department of Agriculture in 1939. Administrator: Claude R. Wickard. For a report of its activities in 1946, see AGRICULTURE.

RUSSELL SAGE FOUNDATION. A Foundation created in 1907 through a gift of $10,000,000 by Mrs. Russell Sage, as a memorial to her husband; additional $5,000,000 was left to the Foundation in Mrs. Sage's will. Its principal purpose is to study social and living conditions in the United States, and to make available to citizens, organized groups, and others such information and proved methods as will assist them to relieve, remedy, or prevent adverse conditions affecting the welfare of their communities. Among the types of activities which in recent years have been carried on by the Foundation's own Departments, or through its grants to agencies with similar purposes, are: adult education, city and regional planning, family welfare, training for social work, study and coordination of community social work programs, studies in the professions, child welfare, leisure-time activities, legal aid, social welfare publications, improvement of race relations, research in the social sciences, methods of relief, improvement of conditions affecting small loans, control of consumer credit, industrial factors in social and living conditions, increasing the public understanding of social work, social statistics, and the relation of the arts to social work. Printed reports of its principal studies are issued by the Foundation, and to assure their greater distribution to interested persons are made available at cost. Among its recent publications are *American Foundations for Social Welfare* by Harrison and Andrews; *Community Centers as Living War Memorials* by Dahir; *Definitions and Instructions for Reprinting Monthly Statistics of Family Casework* by Hurlin; *Law Training in Continental Europe* by Schweinburg; *Music in Hospitals* by van de Wall, *Statistics of Medical Social Casework in New York City, 1945* by Hurlin; *The Use of Research by Professional Associations in Determining Program and Policy* by Brown.

The offices of the Foundation are at 130 East 22 Street, New York 10, New York. A social service Library, open to the public, is maintained at the same address. Morris Hadley is President of the Board of Trustees. Shelby M. Harrison is General Director.

RYUKYU (LOOCHOO) ISLANDS. A chain of islands reaching from the Japanese main island of Kyushu to near northern Formosa. They passed under Allied military control partly by conquest in the early months of 1945 and were completely occupied following the surrender of Japan in September, 1945. Area: 921 square miles. Population: 600,000 (estimated). Capital: Naha, on Okinawa —the largest island in the group.

ST. HELENA. A British colony in the South Atlantic, consisting of the island of St. Helena (47 square

miles) and its dependencies—Ascension Island (34 square miles), 700 miles northwest of St. Helena, and the smaller Tristan da Cunha group, about halfway between the tip of Africa and South America. Population of St. Helena (1940 estimate), 4,710. Capital, Jamestown on St. Helena. St. Helena and its dependencies are administered by a governor and an executive council, assisted by an advisory council.

ST. LUCIA. An island colony in the Windward Islands group of the British West Indies. Area, 233 square miles. Population (1942 estimate), 73,770. Capital, Castries (12,000). St. Lucia is governed by an Administrator, acting under the Governor of the Windward Islands. The Administrator is assisted by a nominated Executive Council and by a Legislative Council, some of whose members are elected. Sugar, copra, cacao, and fruits are the chief products.

ST. PIERRE AND MIQUELON. A French colony comprising two small groups of islands near the south shore of Newfoundland. Area: St. Pierre group—10 square miles; Miquelon group—83 square miles. Total population, 4,120. Capital, St. Pierre. Fishing is the chief industry. Trade (1943): imports 30,338,370 francs; exports 10,259,434 francs. Textiles, wines, salt, and foodstuffs were the chief imports. Cod (fresh and dried) and fish products were the principal exports. Governor: Pierre Garrouste.

SAIPAN. A coral island in the Mariana group of the Japanese Pacific Islands, occupied by United States armed forces in July, 1944. On November 6, 1946, the United States requested that the island be placed under United Nations trusteeship with the United States as administering authority. It is about 15 miles long from north to south, and about 4 miles wide Area, 72 square miles. The population before the war included 40,000 Japanese, 4,000 Chamorras, and 1,000 Kanakas. Garapan, the only town, is on the west side of the island. During peacetime the annual export of sugar was valued at more than $6,000,000.

SAKHALIN. An island northeast of Japan, in the Sea of Okhotsk. Area, 28,597 square miles. The southern part (south of 50° N.) was under Japanese control from 1905 when it was ceded by Russia in the Treaty of Portsmouth until the surrender of Japan in 1945 when it was occupied by armed forces of the U.S.S.R. According to one of the terms of the Yalta agreement signed by the "Big Three" the southern half of Sakhalin (including adjacent islands), was to be restored to the U.S.S.R.

SALVATION ARMY, The, is a religious body operating in 98 territories of the world, preaching the gospel of Christ in 102 languages, and ministering to emergency needs of humans. Trained officers numbering 27,000 guide its over 5,000,000 followers.

Following the Salvation Army's positive reaction to war urgency needs, the organization sought to help win the peace by action. Its facilities were revamped to serve men headed overseas as replacements, to help returning servicemen step back into civilian life, to assist their wives and families, to brighten the days for hospitalized servicemen, to continue to provide a home away from home. Such activities were channeled through its network of rehabilitation services, its mobile canteens, its Red Shield Clubs, and those operated through USO.

A national goal was set for expanded programs: preventive and rehabilitative service in police courts and prisons; extension of Salvation Army facilities to small towns and rural areas of the United States; a quickened effort to broaden the Army's religious, welfare, health, educational and character building activities.

Among reconversion "musts" aimed at through its activities, The Salvation Army emphasized the recapture of a normal mental outlook; care and recovery for the sick and maimed; food and clothing for the needy; a broad program of employment; the return of family life to a normal peace-time basis; building up of health and character for the children of the nation.

Youth activities were intensified particularly during the summer months when over 27,000 mothers and children were emancipated from the blights of stifling city summers at Salvation Army Fresh Air Camps.

During the country-wide clothing drive, Salvation Army centers shouldered their share of the job by collecting, repairing, and crating garments for the needy overseas. Addition overseas relief activities were in full swing. Local Corps and other units hurried a wide range of relief supplies to war-torn countries. Many Salvation Army kitchens were converted to canneries where volunteers processed food for overseas shipment. Its world-wide chain of units facilitated the task, and many governments requested the organization to render more aid than ever before. Relief shipments were speeded to all countries where the need was greatest.

The entire program was coordinated through National Headquarters, New York City by Commissioner Donald McMillan, National Secretary.

SAMOA. A group of 14 islands in the mid-Pacific just below the equator and 4,150 miles southwest of San Francisco. The islands of the group east of 171° W. longitude, called American Samoa, belong to the United States; those west of that line are administered by New Zealand under a mandate of the League of Nations and are known as Western Samoa.

American Samoa. American Samoa includes the island of Tutuila on which the U.S. Naval Station is located; the Manua group, consisting of the islands of Tau, Olosega, Aunuu, and Ofu; Rose Island, and Swains Island. These islands, with the exception of Swains Island, were acquired on December 2, 1899, through a tripartite agreement with Great Britain and Germany. By joint resolution of Congress, approved March 4, 1925, Swains Island was annexed to American Samoa. All but Rose Island, which is an uninhabited coral atoll, are of volcanic formation. The total area is 76 square miles and the population, as of June 30, 1946, was 17,077, mainly Polynesian, an increase of more than 25 percent over the last prewar population figure reported. The seat of government is at the village of Pago Pago, Tutuila, which has one of the finest harbors in the South Seas.

American Samoa, classified as a United States possession, is under the control of the Navy Department and is administered by a Naval Governor. Samoans are not citizens of the United States but owe allegiance to the American flag as nationals of the United States. While the Constitution of the United States does not extend to American Samoa, the Regulations and Orders for the Government of American Samoa, printed in both English and Samoan languages, contain most of the guarantees of the Bill of Rights of the United States Constitution. Local administrative matters are conducted

by village, county and district councils composed of hereditary chiefs and their advisors. The Chief Samoan legislative council, or Fono, meets annually and serves in an advisory acapacity to the Governor in matters relating to the welfare of American Samoa. For purposes of local administration American Samoa is divided into three districts each having a Samoan governor. The judicial power is vested in Village Courts each presided over by a village magistrate; six District Courts each presided over by a Samoan District Judge and a United States District Judge; and a High Court presided over by a United States civilian Chief Justice and two Samoan Associate Justices selected from the District Judges.

During the year ending June 30, 1946 instruction was offered by 44 public and 6 private schools having a total enrollment of 3,903 and employing 95 Samoan teachers and 2 Samoan principals. Attendance is compulsory for children between the ages of 6 and 15. English is used in public schools and the Samoan language in private schools. Illiteracy in 1930 was lower than in any other U.S. possession—6.3 percent. Copra, dried coconut meat, the most important crop for commercial sale, produced a gross income of $27,394 21 for the period between January 1, 1945 and June 30, 1946. The Department of Samoan Industry, established in April, 1946 to encourage the production of Samoan handicraft, reported sales amounting to $4,220.02 for a two-month period.

The new Samoan Hospital was established in 1946 with a 200 bed capacity and a staff of 20 Naval Medical officers, 10 Naval nurses and 136 Naval corpsmen. A child health clinic on wheels has been instituted to visit all parts of American Samoa. It has averaged more than 600 infant examinations per month. An experimental and dairy farm is maintained for the improvement of Samoan agriculture and animal husbandry.

For the year ending June 30, 1946 the Bank of Samoa reported resources of $1,607,672.53.

Captain H. A. Houser, U.S.N., the present Governor of American Samoa and Commandant of the Naval Station, Tutuila, assumed office September 10, 1945.

Western Samoa. West of American Samoa, less than 100 miles, lies Western Samoa, another group of islands of which the two largest are Savaii and Upolu. Racially and culturally they are similar to American Samoa. Area, 1,133 square miles. Population (July 30, 1944), 65,643, including 61,804 Samoan natives (Polynesians). Capital, Apia, on Upolu. A common indigenous culture and common folkways and mores form the foundation of society in both American and Western Samoa. The natives are Christians of different denominations. There were 11,302 pupils enrolled in the schools in 1945. Copra, cacao, rubber, and bananas are the chief products. Trade (1943): Imports, £605,911; exports, £282,991. For the year ended Mar. 31, 1943, government receipts were £212,996; expenditures, £203,492. During 1943, 162 vessels of 69,475 tons entered the port of Apia.

The United States and New Zealand have taken joint measures for the defense of all the Samoan islands and a large U.S. air base has been constructed on the island of Upolu. Western Samoa is administered by the New Zealand Minister of External Affairs, acting through an Administrator in Apia. On October 5, 1945, Lt. Col. F. W. Voelcker was appointed Administrator by the New Zealand Government.

Early in 1946 New Zealand became the first of the United Nations to offer a mandated territory (Western Samoa was formerly a German colony before World War I) to United Nations trusteeship when she suggested such a change for Western Samoa. On November 22 New Zealand brought the entire trusteeship question in the United Nations to prominence when she asserted she would continue to administer Western Samoa if United Nations provisions for joint control of the territory were found "unacceptable." At the closing sessions of the United Nations General Assembly, New Zealand trusteeship of Western Samoa was approved.

SANITATION. Great activity has been predicted for 1947 in the provision of sewerage facilities, based on: (1) the need for enlargement and improvement of all existing sewer systems and sewage treatment plants; (2) the need of sanitary facilities in numerous towns which now have none; (3) the nation-wide need of housing accommodations, and (4) the growing opposition to the pollution of rivers and other sources of water supply by sewage and industrial wastes. However, optimistic predictions may be offset by difficulties rising from shortage of men and materials for construction, or from government restrictions.

It has been estimated that new or extended and improved sanitary facilities needed by some 20,000 communities of over 200 population, represent an expenditure of $4,417,000,000. This is exclusive of the numerous housing groups. A survey in Minnesota showed that of 734 places having populations of more than 500, there were 209 with sewers and sewage treatment plants, 111 had sewers only, and 414 had no such facilities. On the other hand, progress is checked seriously by uncertainties of labor, materials, and prices These conditions tend to increase construction costs to such an extent above the estimates as to result in postponement of proposed works. An increasing factor in sanitary matters is the provision of municipal and private swimming pools, the overflow, wash water, and emptying of which must be delivered to the sewers.

A disturbing factor is the shortage of trained and experienced sanitary engineers, chemists, and skilled operators needed upon the design, construction, and operation of sewage works, as well as in municipal activities, food manufacture, research and other lines of work. In 1946, there were about 3,560 sanitary engineers in the United States, and 1,500 of these were commissioned officers in the army, navy, and public health service. This supply is entirely inadequate for post-war conditions and requirements. During the war, the training of undergraduates and graduates practically ceased, so that there is a five-year deficit in the already low rate of production of personnel. The main cause is the former drafting of students and beginners into the army. That the army made good use of its trained men is shown by its health records and its many plants built abroad, even in jungle areas.

Research and experimental work have been carried on in spite of unfavorable conditions Ozone treatment has been tried at Kelso, Wash., but there is doubt as to its value beyond control of objectionable odors. At Los Angeles, a new bactericide has been tried for chemical treatment of sewage before it reaches the treatment plant. The activated sludge process is in favor where high quality effluent is required. Chlorination is employed at a number of plants. Aeration of sewage and sludge is being tried, as well as vacuum treatment of sludge. Chemical treatment has declined, but has advantages in the pre-treatment of industrial

wastes. Sewage gas is being used to an increasing extent.

Court decisions were rendered against the Sanitary District of Chicago for alleged infringement of patent rights in the activated sludge process, but the case will be carried to higher courts. The State of Illinois has suits against the State of Indiana and a group of Indiana cities and industrial plants for pollution of Lake Michigan, from which Chicago draws its water supply. But meanwhile some of the defendants are planning treatment plants. The State of California has brought suit against Los Angeles and nine other cities for pollution of the ocean beaches by sewage, but here again engineering is making progress, for Los Angeles has let contracts for a new sewer outlet extending a mile out to sea, and six cities around San Francisco Bay have proposed a joint sewage treatment plant.

At Denver, Colo., there is controversy between the city and State authorities over the quality of the effluent from the sewage treatment plant into the South Platte River. Only primary treatment is given, which the State considers inadequate, especially when the effluent is used for irrigating vegetable crops. Chicago is completing the equipment of its great West and Southwest sewage works, long delayed by war conditions and shortage of materials. Toledo, Ohio, has a long-term program for expansion of its sewage treatment works. Worcester, Mass., has been ordered by the State public health department to repair sewers damaged by excessive amounts of acid wastes from war industries.

Prohibiting the pollution of rivers, streams, and coastal waters by raw sewage and trade wastes is a rapidly widening policy, based on the dangers to public health, the bad quality and appearance of the water, and the nuisance condition, as at bathing beaches and in communities. More and more States are passing laws of this nature, and proposed national laws have been introduced in Congress, some of these giving restrictive power to the Federal government.

As part of a policy for cleaning the harbor and beaches at San Francisco, the city has a pumping plant in the Sea Cliff residential district to deliver sewage to the Richmond treatment plant. Public interest in the anti-pollution movement is being aroused by a movie-film on "Clean Waters" distributed by the U S. Public Health Service Another aspect of the anti-pollution policy is toward the development of sewage treatment and methods of recovering and utilizing valuable chemicals and other products now wasted.

Garbage and refuse handling is a troublesome problem in many cities, largely resulting from inefficient management and political control of collection and disposal. In the sanitary-fill system, successful in many cases, the material is deposited, spread, and covered carefully, and is not to be compared with the haphazard system of dumping on low ground or filling quarries or excavations.

At Fort Worth, Texas, the land-fill system costs 5.37 cents per cubic yard, against 15 96 cents for incineration. San Francisco, after fourteen years of experience, has renewed a contract for the land-fill system. Los Angeles uses garbage for hog feed, but has contracted for incineration of rubbish. Incinerators have been ordered also for Rome, N.Y., and Pittsfield, Mass. Allied to the problem of garbage collection is that of rat extermination. St. Louis has a rat-control program, and Chicago has considered such a plan, with power given to the authorities to enter upon private property upon which rats are harbored.

At Honolulu, Hawaii, a sewage system is planned, with a treatment plant on an island and the effluent discharged into the sea outside of the harbor. In Puerto Rico, several sewer systems and treatment plants are to be built by United States firms. At Germiston, Union of South Africa, the treatment plant is 11 miles from the city, and the sewage becomes stale, causing severe corrosion of the concrete. The remedy has been to provide ventilating manholes.

The Inter-American Association of Sanitary Engineering was organized by 160 delegates from fourteen countries at a conference held at Caracas, Venezuela, in October. A similar conference had been held in Brazil in July. The sanitary program of the U.S. Office of Inter-American Affairs has been taken over by the Department of State.

E. E. RUSSELL TRATMAN.

SAN MARINO. An independent republic in Italy, near the town of Rimini. Area, 38 square miles; population (1939), 14,545. Capital, San Marino. Chief exports: cattle, wine, building stone. Financial estimates (1939–40) were balanced at 6,009,-919 lire. The legislative power is in the hands of the grand council of 60 members elected by popular vote. Two are appointed from this council every six months to act as regents.

SARAWAK. A British crown colony on the northwest coast of the island of Borneo. Area, about 50,000 square miles. Population (estimated), 490,585. Capital, Kuching.

Change of Government. The territory of Sarawak, obtained in part by Sir James Brooke from the Sultan of Brunei in 1841, remained under the Brooke family as the "White Rajahs" of Sarawak until 1946. The country was recognized as an independent state under the protection of Great Britain in 1888. In September, 1941, the centenary of the first Rajah's assumption of power, a new constitution was promulgated and executive and legislative councils were provided for Before action could be taken the country was occupied by the Japanese (December, 1941). Allied troops reentered in June, 1945, and a military government was set up Rajah Charles Vyner Brooke was absent from his country four and one-half years before his return in April, 1946.

In 1945 the Rajah proposed the cession of Sarawak to Great Britain. The British Government accepted the proposal, and announcement of the change of Sarawak's status to that of crown colony was made in the British House of Commons on February 6, 1946 The House of Commons showed some anxiety as to how far the move had the approval of the people of Sarawak, and the Rajah undertook to consult them upon his return. The cession was formerly proclaimed in Kuching on July 1. Lieut. Gen. Sir Charles Clarke was appointed Governor of Sarawak

At no time in 1946 was the situation easy. In response to continued pressure from Britain the matter was put to the State Council (Council Negri), which voted in favor of cession, but with the majority of Malay representatives opposed and Chinese equally divided so that the Europeans carried the vote. Bertram Brooke, brother of the Rajah and heir-presumptive, together with his son Anthony, head of the 1945 provisional government, continued actively to oppose cession.

Criticism of the British Government's denial of permission to Anthony Brooke to reënter Sarawak produced a House of Commons statement by the Colonial Secretary on December 19 and some sub-

sequent debate. Creech Jones called Brooke's demand for the restoration of the Raj, with himself or his father as Rajah, an attempt to "subvert existing authority" in behalf of "a small and unrepresentative minority of the people." Opposition leader Winston Churchill described as the "perfect declaration of tyranny" the Colonial Secretary's further statement that Sarawak urgently needed reconstruction and therefore its people should not be confused by another constitutional problem. Anthony Brooke proceeded to Singapore in the hope that the decision might be reversed.

STATISTICS OF STATE SCHOOL SYSTEMS, 1943-44

State, District of Columbia or Outlying Part	Estimated Population 5-17 Years of Age July 1, 1944	Enrollment			High-school Graduates	Average Daily Attendance	Average Number of Days Schools were in Session	Average Number of Days Attended by Each Pupil Enrolled
		Total	Elementary Grades	High-school Grades				
UNITED STATES								
1943-44	28,930,000	23,266,616	17,713,096	5,553,520	953,254	19,602,772	175 5	147 9
1942-43		24,155,146	18,033,080	6,122,066	1,086,498	20,293,274	174 4	146 5
1941-42	29,183,560	24,562,473	18,174,668	6,387,805	1,161,199	21,031,322	174 7	149 6
1940-41		25,296,138	18,582,225	6,713,913	1,152,223	21,547,444	174 5	148 6
1939-40	29,805,259	25,433,542	18,832,098	6,601,444	1,143,246	22,042,151	175.0	151.7
1933-34	32,392,749	26,434,193	20,765,037	5,669,156	836,925	22,458,190	171 6	145.8
1929-30	31,571,322	25,678,015	21,278,593	4,399,422	605,457	21,264,886	172 7	143 0
1919-20	27,728,788	21,578,216	19,377,927	2,200,389	275,238	16,150,035	161 9	121.2
1909-10	24,239,948	17,813,852	16,898,791	915,061	128,812	12,827,307	157.5	113.0
1899-1900	21,404,322	15,503,110	14,983,859	519,251	71,410	10,632,772	144 3	99 0
Ala	790,000	642,035	545 575	96,460	13,764	527,281	168 3	138 2
Ariz.	148,000	101,239	82,162	19,077	2,967	87,201	168 3	144 9
Ark	488,000	400,897	337,731	63,166	10,239	320,449	159 5	127 5
Calif [a]	1,452,000	1,303,008	970,521	332,487	54,640	1,047,413	176 4	141 8
Colo.	245,000	202,410	155,079	47,331	8,531	168,362	175 2	145 7
Conn	341,000	255,426	185,599	69,827	12,415	216,687	180 0	152 7
Del.	57,000	41,232	31,265	9,967	1,671	35,727	181 5	157 3
Fla	452,000	355,652	281,840	73,812	10,088	313,155	171 3	150 8
Ga.	825,000	682,149	561,958	120,191	21,200	547,070	171 6	137.6
Idaho.	120,000	111,331	82,602	28,729	5,261	90,746	169 5	138 2
Ill	1,504,000	1,124,921	808,229	316,692	57,296	950,995	186 8	157 9
Ind	729,000	644,838	473,882	170,956	30,811	569,016	157.9	139 3
Iowa	501,000	459,741	343,464	116,277	23,834	382,672	176 3	146 8
Kan	372 000	342,488	252,545	89,943	16,624	282,858	172 6	142 6
Ky.	704,000	525,444	445,022	80,422	12,680	414,457	160 1	126 3
La.	611,000	432,595	342,569	90,026	13,420	361,183	171 2	142 9
Maine	188,000	148,524	116,328	32,196	6,231	140,281	177 6	167 8
Md.	427,000	282,047	219,467	62,580	10,275	245,984	186 7	162 8
Mass.	832,000	617,595	442,326	175,269	20,650	517,849	176 7	141 1
Mich.	1,196,000	898,589	685,421	213,168	39,590	831,188	180 0	166 5
Minn.	556,000	460,762	337,761	123,001	24,395	388,281	172 5	145 4
Miss.	595,000	547,592	480,818	66,774	9,720	444,898	148 0	120 2
Mo.	751,000	631,818	483,513	148,305	24,382	530,696	183 2	153 9
Mont.	109,000	91,770	66,606	25,164	5,094	78,168	175 5	149 5
Neb.	270,000	237,589	170,155	67,434	13,944	200,253	176 3	148 6
Nev.	27,000	24,255	18,734	5,521	825	19,450	177 7	142.5
N H.	98,000	66,444	48,823	17,621	3,230	57,615	174 6	151.4
N.J.	805,000	631,362	451,660	179,702	30,892	539,761	182.4	156 0
N M.	152,000	121,567	100,747	20,820	2,939	92,856	180 0	137.5
N.Y.	2,402,000	1,938,062	1,346,368	591,694	89,155	1,587,260	181 9	149 0
N.C	977,000	825,553	692,725	132,828	27,969	728,412	179 9	158 7
N.D.	145,000	117,404	90,371	27,033	5,276	100,473	169 0	144 6
Ohio	1,418,000	1,115,630	811,921	303,709	57,154	1,000,544	179 3	160 8
Okla.	535,000	463,892	357,982	105,910	17,100	386,061	169 6	141 1
Ore.	225,000	196,407	144,832	51,575	9,022	166,801	176 1	149.6
Penn	2,082,000	1,568,865	1,121,187	447,678	89,343	1,371,950	183 1	160 1
R.I.	144,000	96,936	73,284	23,652	4,088	80,974	180 0	150 4
S C	543,000	453,984	372,774	81,210	11,385	364,033	169 7	136 1
S D.	137,000	116,318	86,903	29,415	5,995	97,559	173 6	145 6
Tenn.	739,000	606,420	511,298	95,122	13,938	491,833	167 1	135 5
Texas	1,575,000	1,242,985	953,921	289,064	47,177	1,005,994	172 7	139.8
Utah	157,000	138,282	100,763	37,519	7,073	122,414	170 6	151 0
Vt	75,000	55,099	43,562	11,537	2,294	47,820	178 6	155 0
Va	708,000	534,778	420,799	113,979	16,982	458,191	180 0	154.2
Wash.	364,000	366,187	275,893	90,294	15,439	279,276	178 4	136 0
W.Va.	499,000	409,080	326,252	82,828	13,181	360,271	172 2	151 7
Wis.	660,000	490,796	348,774	142,022	27,504	432,777	175.4	154 7
Wyo.	56,000	52,431	39,277	13,154	2,161 [d]	39,832	179 3	136.2
D.C.	144,000	92,187	71,808	20,379	3,410	77,745	175 8	148 3
OUTLYING U.S	748,157 [b]	408,944	358,360	50,584	6,510	367,257	189.1	169 8
Alaska	16,438 [b]	6,608	5,309	1,299	175	5,112	174 4	134.9
Canal Zone	7,475 [b]	6,448	5,196	1,252	..	5,770	203 2	181 8
Hawaii	119,186 [b]	82,488	60,089	22,399	3,624	76,244	186 0	171 9
Puerto Rico	598,705 [b]	309,595	284,285	25,310	2,662	276,734	190 0	169 8
Virgin Islands	6,353 [b]	3,805	3,481	324	49	3,397	182 0	162.5

[a] Statistics of junior colleges in California and other States omitted when possible. [c] Statistics incomplete. [d] Estimated basis

Population. The population of Sarawak consists of Malays, Dayaks, Milanaus, Kayans, Kenyahs, Muruts, and other indigenous peoples, together with Chinese and other settlers. Schools are conducted by the Church of England, Roman Catholic, American Methodist and various other missions in the country.

Resources. Sarawak is rich in coal, oil, rubber, diamonds, and gold. Exports customarily exceed imports. There is usually a treasury surplus of revenue over expenditure, a fact utilized by Anthony Brooke in questioning grants to Sarawak, which formerly has needed no financial aid from Britain.

ALZADA COMSTOCK.

		Supervisors, Principals, Teachers and Other Instructional Staff			Current Expense (less interest)			
Percent Attendance is of Enrollment	Average Value of School Property per Pupil Enrolled	Number	Aggregate Salaries	Average Salaries	Amount	Per Pupil in Average Daily Attendance	Interest	Capital Outlay
84.3	$341	865,038	$1,494,506,929	$1,728	$2,293,337,099	$116 99	$ 96,804,865	$ 53,856,462
81 3	...	877,703	1,403,370,618	1,599	2,127,755,352	104 85	102,940,443	68,765,818
85.6	318	898,001	1,353,151,430	1,507	2,067,660,387	98 31	108,781,446	137,552,326
85.2	..	907,723	1,334,313,981	1,470	1,990,477,242	92 38	. .	148,824,565
86 7	300	911,835	1,314,342,483	1,441	1,941,799,228	88 09	130,908,959	257,973,601
85 0	205	869,316	1,067,042,258	1,227	1,515,530,198	67 48	137,036,525	59,276,555
82 8	203	880,365	1,250,427,194	1,420	1,843,551,708	86 70	92,535,880	370,877,969
74.8	112	677,867	590,119,516	871	861,119,933	54 65	18,211,831	153,542,852
72.1	62	523,210	253,915,170	485	356,272,064	27 77	. . . .	69,978,370
68 6	35	423,062	137,495,150	325	179,513,798	16 88	. .	35,450,820
82 1	104	19,984	20,155,035	1,009	28,564,838	54 17	399,905	1,115,742
86 1	234	3,613	6,874,214	1,903	10,472,410	120 10	297,991	333,732
79 9	118	12,487	10,555,170	845	16,779,375	52 36	772,397	753,868
80 4	337	41,981	109,806,202	2,616	172,604,204	164 79	6,661,847	4,594,513
83 2	344	8,465	13,547,655	1,600	21,120,490	125 44	743,781	457,602
84 8	414	10,761	21,730,912	2,019	32,738,471	151 09	980,851	313,002
86 6	473	1,654	3,194,726	1,932	4,699,446	131 54	44,865	65,459
88 1	251	13,407	18,636,086	1,390	25,914,938	82 76	2,110,266	1,084,438
80 2	125	23,166	21,374,135	923	30,472,567	55 70	136,891 [a]	733,813
81.5	271	4,105	5,662,692	1,379	9,267,154	102 12	222,539	203,045
84.5	529	45,203	91,197,543	2,018	150,280,832	158 02	5,066,047	4,183,909
88 2	332	22,559	41,359,842	1,833	63,313,220	111 27	1,133,288	1,060,778
83 2	313	22,657	29,197,559	1,289	44,421,274	116 08	1,052,532	899,943
82 6	366	17,250	22,651,191	1,313	32,409,278	114 58	1,600,000 [d]	1,010,798
78 9	167	18,040	20,893,558	1,158	31,198,361	75 28	557,352	1,403,209
83 5	195	14,531	20,732,841	1,427	32,712,969	90 57	1,190,109	785,886
94.5	267	5,881	6,808,655	1,158	11,667,752	83 17	152,603	502,148
87 2	322	8,922	18,457,484	2,069	27,184,879	110 51	1,357,747	449,456
83.8	519	25,047	55,588,738	2,219	83,375,790	161 00	651,226 [a]	444,819
92 5	430	33,670	67,785,973	2,013	103,239,877	124 21	4,736,963	3,203,206
84 3	456	19,495	30,554,217	1,567	52,143,011	134 29	535,797	806,460
81.2	131	15,687	12,392,366	790	18,795,570	42 25	43,337 [a]	10,441 [a]
84 0	296	23,697	33,402,849	1,410	53,379,145	100 58	1,389,730	1,182,868
85 2	426	4,802	6,977,125	1,453	12,437,462	159 11	59,204	257,520
84 3	349	12,762	14,785,626	1,159	22,429,710	112 01	573,816	319,828
80 2	347	978	1,834,559	1,876	2,903,828	149 30	53,353	65,827
86 7	376	2,989	4,082,850	1,366	6,894,178	119 66	91,186	90,509
85 5	580	26,661	62,740,243	2,353	99,896,128	185 07	6,198,310	711,316
76 4	197	4,010	5,839,219	1,456	10,540,917	113.52	219,377	93,725
81 9	627	72,457	197,535,068	2,726	293,842,551	185 12	21,216,601	7,763,841
88 2	156	25,929	34,803,252	1,342	47,465,131	65 16	2,164,029	1,655,346
85 6	335	6,720	7,113,348	1,059	11,943,725	118 88	433,923	658,590
89 7	402	40,637	77,702,909	1,912	124,932,416	124 86	5,118,894	1,707,587
83.2	211	17,135	24,483,067	1,429	34,246,216	88 71	887,016 [a]	1,090,965
84 9	377	7,869	14,232,194	1,809	22,177,036	132 96	452,256	614,378
87.4	429	59,141	116,638,768	1,972	179,915,281	131 14	17,221,811 [a]	2,181,993
83 5	530	3,937	8,037,891	2,042	12,054,867	148 87	985,007	88,535
80 2	127	15,313	14,894,283	973	21,193,805	58 22	844,931	786,512
83.9	368	7,169	8,303,861	1,158	12,762,860	130 82	272,473	205,072
81.1	116	20,236	21,485,817	1,062	30,598,617	62 21	267,622 [a]	526,907
80.9	248	45,102	59,954,608	1,329	88,683,208	88 15	5,781,244	3,501,052
88.5	324	4,716	8,448,972	1,792	13,694,266	111.87	300,408	379,874
86 8	284	2,598	3,026,284	1,165	5,354,487	111 97	43,369	151,051
85 7	185	18,240	23,850,807	1,308	34,502,986	75 30	536,785	1,030,257
76 3	311	11,994	25,174,746	2,099	40,932,069	146 57	556,238	1,609,712
88.1	229	15,324	23,112,383	1,508	33,528,068	93 06	383,254	1,189,711
88.2	417	20,408	34,789,835	1,705	55,096,119	127 31	284,043	1,161,917
76 0	319	2,321	3,414,530	1,471	5,981,530	150 17	21,651	296,670
84 3	588	3,328	8,685,041	2,610	12,573,787	161 73	... .	118,632
89 8	98	10,962	13,311,809	1,214	19,105,272	52 02		333,548
77.4	340	305	753,784	2,471	1,087,796	212 79	. . . .	8,167
89 5	394	242	482,465	1,994	820,122	142 14	.. . .	7,280
92 4	221	2,899	3,804,651	1,312	5,897,671	77 35	..... .	252,148
89.4	55	7,346	8,124,670	1,106	11,095,563	40 09	.... .	65,953
89.3	...	170	146,239	860	204,120	60.09	.. . ..	.. .. .

previous years. [a] Cities only. [f] Statistics 1939–40. [g] Statistics 1941–42. [h] Population 1940.

SAVINGS BONDS DIVISION, U.S. A Division of the U.S. Department of the Treasury, formerly the War Finance Division, reorganized January 1, 1946. Its chief purpose is to continue the sale of savings bonds through the pay-roll savings plan and through schools, and to encourage the continued holding of savings bonds.

The Division and the Field offices operate through four main branches: Banking and Investment, Labor and Industry, Community, and Promotion and Publicity, all under the direction of the National Director, who is an Assistant to the Secretary. The sales organization (field) consists of offices in all States, District of Columbia, Hawaii, Alaska, and Porto Rico, actively operating in the recruiting of volunteer committees, sales, and promotional personnel. The Washington organization plans campaigns and advises and services the field workers. The Division enjoys the cooperation of all advertising media, including newspapers, radio, magazines and business publications, motion pictures, labor, business, schools, and many other groups. National Director: Vernon L. Clark.

SCHOOLS. A report by Francis G. Cornell, Chief, Research and Statistical Service, U.S. Office of Education, showed that public school enrollment statistics from States for the year 1943–44 indicate a reduction of about 8 percent during four years of war In 1939–40, enrollments for the continental U S. were 25,400,000, and average daily attendance was 22,000,000. In 1943–44, enrollment and average attendance were, respectively, 23,300,000 and 19,600,000. (See table, pages 564–565.)

Most of the reduction is attributed to withdrawals of young people into the armed forces, opportunities for employment and a prewar decrease in birth rates In Apr., 1944, approximately 3,000,000 people of school age, who normally would have been in school or college, were in the armed forces or in the civilian labor force.

Not so well known is the apparent scope of geographical shifts in school population due to an unprecedented high rate of migration of the civilian population. The September, 1945, estimate of the U.S Bureau of the Census places the average annual intercounty migration for the period 1941–45 at 4,700,000. This is roughly two-thirds more than the equivalent figure of 2,800,000 for the prewar period 1935 to 1940 The impact of this wartime population movement on the school population is indicated by the fact that almost 3,500,000 of the 15,300,000 migrants were under 14 years of age. Relatively large numbers of migrants were adult workers shifting to war production areas. Of the population 14 and over, 12 7 percent were migrants during the war period. Nevertheless 10.8 percent of persons under 14 years of age were also migrants.

Summer school sessions in the elementary school level in 142 school systems showed an enrollment total of 48,087 in 1944, a gain of 10.1 percent over the 1943 figure; and on the high school level in 220 systems the enrollment totalled 111,731 as compared with 95,459 in 1943, representing a gain of 17 percent.

In the five years from 1939–40 to 1944–45 there was a decrease of approximately 68,000, about 7.4 percent, in the total number of positions for teachers, supervisors, principals and other instructional staff.

Approximately 168,000 or 20.4 percent of the teaching positions in the fall of 1944 were held by "new" teachers, persons who had not taught in that position the previous year. Approximately 5,000 positions were reported vacant for 1944–45.

From the end of the school year in June 1944 to Oct. 16, 1944, approximately 138,000 teachers left the positions they held in 1943–44 and all but about 50,000, who went to other teaching jobs, left the profession. In addition to about 2,500 who entered the armed forces during this period, over 14,000 women teachers left teaching, for which they had prepared, to take a job in government or industry. Almost as many male teachers left to go into business and industry as into the armed forces during this period.

DECREASE IN NUMBER OF INSTRUCTIONAL STAFF

School Year	Number	Percent Decrease From Previous Year	Percent Decrease From 1939–40
1939–40	911,800	...	...
1940–41	907,700	0 45	0 45
1941–42	898,000	1 07	1 51
1942–43	877,000	2 34	3 82
1943–44	865,000	1 37	5 13
1944–45	860,000	0 58	5 68

SCIENTIFIC RESEARCH AND DEVELOPMENT, OFFICE OF (OSRD). A United States agency, established by executive order, June 28, 1941, to assure adequate provision for research on scientific and medical problems relating to the national defense. Dr. Vannevar Bush, President of the Carnegie Institution of Washington, is Director. The headquarters are located at 1530 P Street, N W., Washington, D C. For details of organization, see 1943 YEAR BOOK.

Following the close of the war, military restrictions were lifted on a considerable portion of OSRD work, which is being publicized to an increasing extent in the press and in technical journals. The official short history of the OSRD, "Scientists Against Time," by James Phinney Baxter, 3rd, was published November 1, 1946. The long history of OSRD, in a number of volumes, is scheduled for publication in 1947 as is, also, a series of monographs covering highly technical aspects of the work.

VANNEVAR BUSH.

SECRET SERVICE, U.S. A division of the U.S Department of the Treasury, charged with the protection of the President, the suppression of counterfeiting, safeguarding of the money and securities handled by the Government, and the investigation of crimes relating to the Department of the Treasury. (See YEAR BOOK for 1941 for details.) Chief Frank J Wilson.

SECURITIES AND EXCHANGE COMMISSION (SEC). An independent agency of the U.S. Government which has the following functions: Supervision of registration of security issues and suppression of fraudulent practices in the sale of securities under the Securities Act of 1933; supervision and regulation of transactions and trading in outstanding securities, both on the stock exchanges and in the over-the-counter markets, as provided in the Securities Exchange Act of 1934; regulation of public utility holding companies under the Public Utility Holding Company Act of 1935; supervision of indentures used in the public offering of new security issues as provided under the Trust Indenture Act of 1939; registration and regulation of investment companies and investment advisers under the Investment Company Act and the Investment Advisers Act of 1940; and the preparation of advisory reports on plans, and participation as a party, in corporate reorganizations under Chapter X of the National Bankruptcy Act. Chairman: Ganson Pur-

cell. See FINANCIAL REVIEW under *Regulatory Policy* and *The Nation's Savings.*

SELECTIVE SERVICE SYSTEM. Enactment on Sept. 16, 1940, of the Selective Training and Service Act authorized the President to establish a Selective Service System, including: a Director of Selective Service; Local Boards; Appeal Boards and agencies of Appeal; "and to utilize the services of any and all departments of the United States Government; to delegate and to provide for the delegation of any authority vested in him under the Act."

At the beginning of 1946 the problem of the War Department was to keep a peace time Army together to fulfil promises and commitments abroad, at the same time answering an ever growing public demand for the discharge of men who had served during the war.

The Selective Training and Service Act, as amended, was to expire on May 15, 1946. President Truman requested extension of the Selective Training and Service Act in January, declaring that it is "the only way we can get the men and bring back our veterans." Secretary of War Patterson, and General Dwight D Eisenhower, Chief of Staff, United States Army, likewise recommended extension. They declared that the War Department, without the support of Selective Service, could not maintain its discharge policy.

Testifying before a sub-committee of the Senate Military Affairs Committee, General Eisenhower emphasized that only if Selective Service "is able to provide the 50,000 men per month we are asking for will the 1,500,000-man Army (deemed essential by the War Department) be guaranteed under our present discharge policy."

"Stop gap" legislation was passed May 14, after considerable debate, extending the Act until July 1, 1946, and on June 29, another measure was enacted providing for extension of the Act until March 31, 1947 The age bracket for liability for military service was set at 19 through 44 years of age and the Act was also amended to provide for the induction of World War II veterans who had not served overseas for at least 6 months, to exempt all fathers, and to limit military service through Selective Service inductions to eighteen months President Truman fixed the induction age bracket for Selective Service registrants at 19 through 29 years, as the Army did not want men 30 years old or older.

The War Department called upon the Selective Service System for no men during the months of July and August. This was the first "draft holiday." Under the Act Selective Service was empowered to call up for induction only the number of men requested by the War and Navy Departments. The armed forces also determined the age groups of men wanted in every call and set the physical standards for acceptance.

Army enlistments for June totaled 62,494, of which 30,633 were men subject to induction through Selective Service The total for July, 1946, was 44,063, of which 26,812 were listed by the War Department as "without previous military service," indicating that they were Selective Service registrants liable for call. The total for August, 1946, dropped to 39,615, including 27,580 "without prior military service."

In September the War Department called upon Selective Service for 25,000 men. Army volunteers during that month numbered 61,750. The War Department announced on October 15 that there would be a resumption of the "draft holiday" at least until January 1, 1947. October voluntary enlistments were 48,769. In November the number dwindled to 19,427. December saw a further decrease, to 17,221. The War Department announced, however, that the "draft holiday" would be extended through January.

The following table gives the manpower picture as it existed December 31, 1946:

Total Registrants	35,180,000
Class I-C, all ages, (Registrants who were on Dec. 31 or who had been members of the armed forces)	14,064,000
18-year-old Registrants (Exclusive of Class I-C)	700,000
Registrants 19-through-29 years old (Exclusive of Class I-C)	3,403,000
Registrants 30-through-49 years old (Exclusive of Class I-C)	17,013,000

At the end of December 1945 there were approximately 7,000 conscientious objectors assigned to the 150 Civilian Public Service Camps and Projects. The peak number was approximately 8,500. Rate of discharge was slightly below that of the armed forces. As of December 31, 1946 there were only two camps left, containing approximately three hundred conscientious objectors.

There were 55 State Organizations (including New York State Procurement Office), 6,443 Local Boards, and 72 Appeal Boards comprising the Selective Service System at the end of 1946. There were 181,509 persons connected with the System Of this number 172,040 who were uncompensated were divided as follows: 23,348 Local Board members, 7,703 Government Appeal Agents, 73,117 members of Advisory Boards for Registrants, 26,966 Examining Physicians, 6,827 Examining Dentists, 1,972 members of Boards of Appeal, 8,395 members of Medical Advisory Boards, 19,845 Reemployment Committeemen, 3,347 Advisers and Field Agents of the Medical Survey Program, 2 State Directors, and 518 Special Advisers and consultants.

Maj. Gen. Lewis B. Hershey was Director. Brig. Gen. Carlton S. Dargusch was Deputy Director.

LEWIS B. HERSHEY

SENATE, U.S. The following is an alphabetical list of the members of the U.S. Senate, 80th Congress, convening in 1947. Names of Democratic Senators are shown in italic and Republicans in roman type. The date of expiration of service is in all cases January 2, of the year named.

The office of President of the Senate, left vacant by Harry S. Truman, has been filled pro tempore by Kenneth McKellar. Secretary of the Senate is Leslie L. Biffle.

For a list of the Senate of the 79th Congress, see YEAR BOOK for 1946. For the activities of the 79th Congress during 1946, see United States under *Congress.*

Name	*Residence*	*Service*
George D Aiken	Putney, Vt	1941–1951
Josiah W Bailey	Raleigh, N C.	1931–1949
Raymond E Baldwin	Stratford, Conn	1946 1953
Joseph H Ball	St Paul, Minn	1943–1949
Alben W Barkley	Paducah, Ky	1927–1951
Theodore G Bilbo	Poplarville, Miss	1935–1953
Owen Brewster	Dexter, Maine	1941–1953
John W Bricker	Columbus, Ohio	1947–1953
Styles Bridges	Concord, N H	1937–1949
C. Wayland Brooks	Chicago, Ill	1940-1949
C Douglass Buck	Wilmington, Del	1943–1949
Harlan J Bushfield	Miller, S.Dak	1943–1949
Hugh Butler	Omaha, Nebr	1941–1953
Harry Flood Byrd	Berryville, Va.	1933–1953
Harry P Cain	Tacoma, Wash.	1947–1953
Homer E Capehart	Washington, Ind	1945–1951
Arthur Capper	Topeka, Kans	1919–1949
Dennis Chavez	Albuquerque, N.Mex.	1935–1953
Tom Connally	Marlin, Tex	1929–1953

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Name	*Residence*	*Service*
John Sherman Cooper	Somerset, Ky.	1946–1949
Guy Cordon	Roseburg, Oreg.	1944–1949
Forrest C Donnell	Webster Groves, Mo.	1945–1951
Sheridan Downey	Laguna Beach, Calif.	1939–1951
Henry C. Dworshak	Burley, Idaho	1946–1949
James O. Eastland	Ruleville, Miss.	1943–1949
Zales N. Ecton	Manhattan, Mont.	1947–1953
Allen J. Ellender	Houma, La	1937–1949
Homer Ferguson	Detroit, Mich.	1943–1949
Ralph E Flanders	Springfield, Vt.	1946–1953
J. W. Fulbright	Fayetteville, Ark.	1945–1951
Walter F. George	Vienna, Ga.	1922–1951
Theodore Francis Green	Providence, R I.	1937–1949
Chan Gurney	Yankton, S Dak.	1939–1951
Carl A. Hatch	Clovis, N Mex	1933–1949
Albert W. Hawkes	Montclair, N J.	1943–1949
Carl Hayden	Phoenix, Ariz.	1927–1951
Bourke B. Hickenlooper	Cedar Rapids, Iowa	1945–1951
Lister Hill	Montgomery, Ala	1938–1951
Clyde R. Hoey	Shelby, N C	1945–1951
Spessard L. Holland	Bartow, Fla	1946–1953
Irving M Ives	Norwich, N Y.	1947–1953
Wilham E Jenner	Bedford, Ind.	1947–1953
Edwin C Johnson	Craig, Colo	1937–1949
Olin D. Johnston	Spartanburg, S C.	1945–1951
James P Kem	Kansas City, Mo.	1947–1953
Harley M Kilgore	Beckley, W Va.	1943–1953
William F. Knowland	Oakland, Calif	1945–1953
William Langer	Bismarck, N.Dak.	1941–1953
Henry Cabot Lodge, Jr	Beverly, Mass.	1947–1953
Scott W Lucas	Havana, Ill	1939–1951
Warren G. Magnuson	Port Blankey, Wash.	1944–1951
George W. Malone	Reno, Nev	1947–1953
Edward Martin	Washington, Pa.	1947–1953
Burnet R Maybank	Charleston, S.C.	1941–1949
Patrick McCarran	Reno, Nev	1933–1951
Joseph R McCarthy	Appleton, Wis	1947–1953
John L McClellan	Camden, Ark	1943–1949
Ernest W. McFarland	Florence, Ariz	1941–1953
J Howard McGrath	Providence, R I	1947–1953
Kenneth McKellar	Memphis, Tenn.	1917–1953
Brien McMahon	Norwalk, Conn	1945–1951
Eugene D Millikin	Denver, Colo	1941–1951
E H Moore	Tulsa, Okla	1943–1949
Wayne Morse	Eugene, Oreg	1945–1951
James E Murray	Butte, Mont.	1934–1949
Francis J. Myers	Philadelphia, Pa.	1945–1951
Herbert R O'Conor	Annapolis, Md	1947–1953
W. Lee O'Daniel	Fort Worth, Tex.	1941–1949
Joseph C O'Mahoney	Cheyenne, Wyo	1934–1953
John H Overton	Alexandria, La	1933–1951
Claude Pepper	Tallahassee, Fla	1936–1951
Clyde M Reed	Parsons, Kans	1939–1951
Chapman Revercomb	Charleston, W Va	1943 -1949
A. Willis Robertson	Lexington, Va	1946–1949
Edward V. Robertson	Cody, Wyo.	1943–1949
Richard B Russell	Winder, Ga.	1933–1949
Leverett Saltonstall	Boston, Mass	1945–1949
H. Alexander Smith	Princeton, N J.	1944–1953
John Sparkman	Huntsville, Ala.	1946–1949
Tom Stewart	Winchester, Tenn.	1939–1949
Robert A. Taft	Cincinnati, Ohio	1939–1951
Glen H. Taylor	Pocatello, Idaho	1945–1951
Elmer Thomas	Medicine Park, Okla.	1927–1951
Elbert D. Thomas	Salt Lake City, Utah.	1933–1951
Edward J. Thye	Northfield, Minn.	1947–1953
Charles W. Tobey	Temple, N.H.	1939–1951
Millard E. Tydings	Havre de Grace, Md	1927–1951
Arthur H. Vandenberg	Grand Rapids, Mich.	1928–1953
Robert F. Wagner	New York City	1927–1951
Arthur V. Watkins	Provo, Utah	1947–1953
Kenneth S. Wherry	Pawnee City, Nebr	1943–1949
Wallace H. White, Jr	Auburn, Maine	1931–1949
Alexander Wiley	Chippewa Falls, Wis	1939–1951
John J. Williams	Millsboro, Del	1947–1953
George A. Wilson	Des Moines, Iowa	1943–1949
Milton R. Young	Berlin, N Dak	1945–1951

SEYCHELLES. A British island colony in the Indian Ocean, northeast of Madagascar. It comprises a group of 92 islands with a total estimated area of 156 square miles. Mahé (55 square miles) and Praslin (15 square miles) are the largest of the islands. Population (1943 estimate), 33,621. Capital, Victoria, on the island of Mahé. The colony is administered by a governor, assisted by executive and legislative councils. Education is not compulsory, but there are a number of church schools, some of which have grants-in-aid. The chief products are coconuts and livestock. Copra and cinnamon oil are the chief exports. Rice, sugar, and cotton goods are the chief imports.

SHIPBUILDING. Shipbuilding in the United States at the end of 1946 was feeling heavily the pinch of the Administration's policy of retrenchment. The source of the greater part of shipbuilding in this country is the Government, whether for vessels for the United States Navy, for merchant vessels for the United States Maritime Commission, or for private contracts to which the Maritime Commission is a party. The history of the industry the world over always has been marked by periods of great activity and periods of severe depression, and it is quite natural that the intensive shipbuilding program in the United States during World War II should be followed by a period of low activity.

So far as merchant vessels are concerned, there are numerous passenger vessels and vessels of the combination passenger and cargo type that are needed to round out the various shipping services of this country. Plans for the building of these vessels are well advanced, but the construction has been kept waiting, because even the limited appropriations made by Congress have been withheld by the Administration. The Navy Department also has in contemplation certain experimental types of naval vessels, the development and completion of which during 1946 was likewise suspended through the withholding of appropriated funds.

Shipbuilding in the United States is on the decline for the reasons previously stated. Shipbuilding in European nations, on the other hand, is extremely active. At the end of September, 1946, the volume of merchant tonnage under construction in Great Britain was approximately 1,874,878 gross tons of vessels 100 tons gross and upwards, whereas in the United States at that time it was only about 354,000 gross tons, of which more than 50 percent of construction work was scheduled for completion by the end of the year.

Swedish shipyards are booked to capacity for a period of three or four years. The Dutch and the French are getting back into operation as fast as war-damaged shipyards can be rebuilt.

The number and total tonnage of steel self-propelled merchant vessels of 2,000 gross tons and over constructed in American shipyards from 1939 to date is as follows:

Year	(*Vessels of 2,000 tons and over*) *Number of Vessels*	*Gross Tons*
1939	28	241,052
1940	53	444,727
1941	95	749,105
1942	724	5,392,953
1943	1,661	12,499,873
1944	1,463	11,404,404
1945	1,067	7,663,362
1946	84	692,191

These figures speak for themselves, showing a climax reached in 1943, with a somewhat less but still great production in 1944, the decrease being due largely to a change in types of vessels from purely war expedient vessels of slow speed to faster turbine driven vessels also suitable for postwar service.

The number and displacement tonnage of Steel Combatant Naval Vessels [Battleships, Aircraft Carriers, Cruisers, Destroyers, Destroyer Escorts, High Speed Transports (Destroyer Escort Type), Frigates, Minelayers (Destroyer Type), Gunboats, Submarines], built and delivered in the years 1939–1946, are tabulated at the top of page 569.

The number and displacement tonnage of Steel Auxiliary Naval Vessels [Seaplane Tenders, Destroyer Tenders, Motor Torpedo Boat Tenders, Repair Ships, Aircraft Carrier Escorts, Submarine

Year	Built in Private Yards Displacement No.	Tons	Built in Navy Yards Displacement No.	Tons	Total Displacement No.	Tons
1939	16	32,600	11	33,010	27	65,610
1940	12	31,705	15	22,690	27	54,395
1941	15	45,915	16	91,915	31	137,830
1942	94	342,760	35	89,835	129	432,595
1943	387	883,470	158	301,840	545	1,185,310
1944	387	809,305	82	284,555	469	1,093,860
1945	144	456,615	34	194,830	178	651,445
1946	59	275,859	6	60,304	65	336,163

Tenders, Submarine Rescue Vessels, Mine Layers, Ammunition Ships, Oilers, Fuel Oil Ships, Store Ships, Transports, Landing Ship Vehicle (formerly Large Net Layers, Auxiliary Miscellaneous Ships (Ice Breakers)], built and delivered in the years 1939 to date, are as follows:

Year	Built in Private Yards Displacement No.	Tons	Built in Navy Yards Displacement No.	Tons	Total Displacement No.	Tons
1940	4	36,500			4	36,500
1941	1	9,180	3	12,640	4	21,820
1942	10	93,765	6	21,690	16	115,455
1943	62	391,765	1	9,000	63	400,765
1944	69	393,127	2	17,300	71	410,427
1945	24	174,122	1	8,680	25	182,802
1946	18	111,443	1	8,000	19	119,443

One of the extremely important factors was the development of a labor force in size and in skill to cope adequately with the ever-increasing demand for the Liberty vessels, as well as other types. Employment in privately-operated shipyards reached a peak of 1,397,700 in November, 1943, while the Government naval shipyards employed a maximum of 333,100 in July, 1943. The latter were engaged primarily in the repair and maintenance of combatant naval vessels.

While the building yards were busy with the problem of new vessels, the ship-repair yards of the country were called upon for ever-increasing efforts to keep existing vessels in operation. Their task covered conversion of merchant vessels from peacetime to wartime needs, together with an extensive participation in the repair and conversion of naval vessels, mostly of non-combatant types, as well as the repair of battle damage for both naval and merchant vessels.

The scope of the work handled in these repair yards is indicated by the number of vessels repaired or converted for various years as follows:

1942	5,158	1944	22,014
1943	17,172	1945	23,558

As a result of the wartime building program, the gross tonnage of American shipping as of June 30, 1946 was about 35,363,598 gross tons, approximately 50% of world tonnage.

It must be understood, however, that a large percentage of these American vessels are of emergency type—designed for rapid mass production—and hence are not suitable for use as modern, efficient and effective units of a peacetime merchant fleet. American merchant shipping lost approximately 4,000,000 gross tons as casualties of war and 865,000 gross tons as marine losses from period September 1, 1939, to July 31, 1946, among which were some of the finest vessels in the United States merchant fleet. It is the loss of the finer ships, together with the need for new types to round out existing services, that give some promise of a future for the industry in this country. Foreign nations, on the other hand, suffered so severely in losses during the war that their fleets at the end of the war were in most cases seriously depleted, a fact which is largely responsible for the active shipbuilding program existing in Europe today.

H. GERRISH SMITH.

SHIPPING. Merchant shipping, which includes all vessels other than naval or pleasure craft, passed through a number of important evolutions in its returning cycle to a peacetime status in 1946.

Although American vessels have returned all our troops, a large number of foreign ships are still in this service carrying troops of their own countries. American troops were returned first because the United States was able to build and operate four times as many vessels as the rest of the world combined during the war. The first peacetime year in the decade saw 1,700 of these vessels relegated to a National Defense Reserve Fleet for future emergency.

World tonnage, which is actually considerably greater than before the war, was still not great enough to satisfy all rehabilitation and trade demands during 1946. Foreign operators, buying comparatively few of America's war-built ships, placed large orders in shipyards abroad. American operators, faced with trebled costs and with labor difficulties enhanced because of the fierce character of their foreign competition, bought even fewer war-built vessels, and placed few orders for new tonnage. Their fleets, however, on the average, were two to four times larger than before the war.

A marked trend during the year was the emergence of a number of new merchant fleets. Switzerland, Colombia, Costa Rica, Ecuador, Greenland, Iceland, and Eire, for the first time now have merchant ships on the high seas during peacetime.

The war brought about a great re-shuffle in the standings of the maritime nations of the world. The top fifteen nations before and after the conflict are as follows:

TABLE I

Rank	1939	1946
1	Great Britain	United States
2	United States	Great Britain
3	Japan	Norway
4	Norway	Russia
5	Germany	Sweden
6	Italy	Netherlands
7	Netherlands	France
8	France	Japan
9	Greece	Panama
10	Sweden	Spain
11	Russia	Germany
12	Denmark	Greece
13	Panama	Denmark
14	Spain	Italy
15	Finland	Brazil

Germany and Japan will not be permitted to reenter the foreign-trade merchant-shipping picture for many years to come. Their tonnage will be restricted to small coastwise craft. Great Britain and the Scandinavian nations have been taking active steps to fill the gap in the European trades, while, in the Pacific area, the United States and the Netherlands are leading contenders for the trade routes formerly served by Japanese vessels.

Italian shipping, while it will lack the large luxury liners notable before the war, is being partially restored in so far as cargo tonnage is concerned. Italian lines are also buying up a number of old passenger vessels for immigrant services to South America. Italian shipyards have been underbidding the world on new cargo tonnage.

The United States enters 1947 with a better

merchant fleet than at any time since the advent of steam. The American shipping industry does not contemplate the use of more than a quarter of its war-built fleet. This quarter, however, will be composed of "quality" ships, vessels that are 25 percent faster than pre-war. With this fleet, American operators have as their goal the transportation of an average of 50 percent of America's world trade.

Another distinct trend notable during 1946 was the partial obliteration of the dividing line between cargo and passenger ships, particularly in new American merchant vessels. So extensive has been this development that limited passenger accommodations may some day be available on a majority of the world's dry-cargo vessels. Tankers, bulk carriers, whalers, and other such specialized ships, however, will probably never bow to the tourist's urge for the unusual form of transportation.

A breakdown of the world's existing fleet of merchant ships is divided into five principal classifications. They are: combination passenger and cargo vessels, freighters, refrigerated vessels, bulk carriers and tankers. Table II shows how the world's tonnage is presently lined up under these categories.

TABLE II

	Combination Pass & Cargo	*Freighters*	*Refrigerated Vessels*	*Bulk Carriers*	*Tankers*
No of Ships	988	8,694	224	558	1,981
Gross Tons	6,780,469	46,152,940	1,361,196	1,639,508	15,066,295

Of the world's 12,445 merchant ships of 1,000 gross tons and over, 2,224 are of Diesel propulsion, 4,051 are coal burning and 6,170 are oil burners. Nearly half, or 6,099 of these vessels, were built after 1941. Once again fifty percent of the world's merchant shipping will become overage at about the same time.

Table III shows the world's merchant fleets—pre-war and post-war, as of June 30, 1946. This table includes the number and gross tonnage of seagoing iron and steel steam and motor merchant-type vessels of 1,000 gross tons and over The table excludes vessels on the Great Lakes and Inland Waterways and special types such as channel ves-

TABLE III

Flag	*Merchant Fleet as of September 1, 1939* No	*Gross Tons*	*Merchant Fleet as of June 30, 1946* No.	*Gross Tons*
Total All Flags	12,798	58,270,374	12,445	71,000,408
United States	1,379	8,125,756	4,861	35,363,598
British Empire	3,319	17,770,919	3,159	18,064,293
Argentina	45	196,627	64	310,623
Belgium	72	356,862	46	242,670
Brazil	122	413,646	136	490,423
Bulgaria	8	22,306	.	.
Chile	50	153,959	46	151,227
China	100	204,062	73	246,479
Colombia	..	..	2	7,354
Costa Rica	.	.	1	1,068
Cuba	12	17,504	8	11,738
Denmark	379	1,041,756	208	640,864
Danzig	4	5,162	. .	. . . .
Dominican Republic	1	1,973	...	. . . .
Ecuador			1	1,120
Egypt	23	98,177	7	19,119
Eire	.	. . . .	13	33,109
Estonia	94	176,376	13	21,209
Finland	232	530,285	125	252,761
France	555	2,678,435	262	1,370,836
Germany	854	3,915,978	242	800,590
Greece	436	1,697,986	146	619,320
Greenland			1	1,151
Honduras	27	82,068	34	140,553
Hungary	6	22,748	1	1,022
Iceland	..		5	7,245
Italy	667	3,178,120	123	576,199
Japan	1,180	5,102,346	327	1,085,969
Latvia	73	199,058	18	46,013
Lithuania	3	4,330		
Mexico	10	23,815	17	79,336
Netherlands	537	2,670,149	291	1,591,103
Nicaragua	2	3,023	1	1,109
Norway	1,072	4,499,086	607	2,933,972
Palestine	2	4,147	5	9,809
Panama	130	719,041	164	868,855
Peru	7	25,834	10	37,648
Philippines	33	82,695	17	46,780
Poland	31	113,644	28	93,746
Portugal	54	197,307	66	262,329
Rumania	25	101,807	6	26,995
Spain	217	749,681	257	879,286
Sweden	484	1,311,763	443	1,437,535
Switzerland	.	.	7	32,690
Thailand	2	2,622	1	1,311
Turkey	67	173,847	58	151,148
Uruguay	5	13,791	3	11,989
U S S R	354	1,135,783	488	1,851,675
Venezuela	27	70,089	28	71,613
Yugoslavia	98	375,811	26	104,926

Note Included in the above figures but excluded from the United States are U S. Government owned merchant vessels operating under foreign flags

sels, icebreakers, cable ships, etc., and vessels owned by the United States Army and Navy. Some 526 American vessels, with a gross tonnage of 3,223,571, are included under the various foreign flags to which they were lend-leased during the war. They will all have to be returned, or paid for, depending on the results of future negotiations.

FRANK J. TAYLOR.

SHIPPING AND SHIPBUILDING, U.S. Navy. The Naval Shipbuilding Program in 1946 consisted almost entirely of the completion of ships which had been ordered during the war and in which investments in labor and materials had been made to such an extent that good business dictated their completion. When it became clear that Japanese sea-power had been substantially destroyed in the closing months of the war in the Pacific, the Navy Department reviewed its shipbuilding program and determined, even ahead of the final surrender of Japan, that it was practicable to cancel a considerable part of the wartime Naval Shipbuilding Program. This program had been started during the dark days of the early part of the war and had had to be maintained at a high level to assure that the heavy losses which appeared inevitable in the closing phases of so desperate a struggle could be made good.

Early in 1946, a further review of the Naval Shipbuilding Program was made and further curtailments were ordered. This time, however, ships were divided into three categories:

(a) Those ships which should be completed as originally designed. In this category were placed certain ships of advanced design which were required in the Navy's development program and which looked ahead to the technical requirements anticipated in the years following the war, and those ships which had advanced so far in construction that cancellation would effect substantially no financial saving.

(b) Those ships upon which construction should be terminated but which should be retained in the "as is" condition because of the expenditures which have been made upon them and because they could be preserved even in their incomplete condition as a reserve against future need This category included ships which had already been launched or which could readily be brought to launching condition and did not, therefore, involve tying up shipbuilding ways with partially completed vessels

(c) Those ships which should be cut up and disposed of as scrap. While in no case were ships retained under construction simply for the purpose of providing work, efforts were made to distribute the contracts upon which work was to continue among the various yards, so as to

minimize the effects of so drastic a reduction in the total shipbuilding employment.

During the five previous years of national emergency and war, the Navy had organized and carried on a shipbuilding program unparalleled in world history. In the ten months preceding the fall of France in June 1940, some twenty-odd Naval and private shipyards employing several thousand workers had delivered but 31 vessels. Four years later there were 312 private and Naval shipyards engaged in constructing Naval vessels. Employing over 1,000,000 workers, they were building 161 different types of vessels and completing them at a peak rate of between 4,000 and 4,500 ships a month.

Each of these different types of vessels involved a special design to fit it for its particular mission in complex modern warfare—specialists were required for the development of the designs of the various classes: battleships and cruisers, aircraft carriers, destroyers and destroyer escorts, submarines, patrol craft including PTs (motor torpedo boats), and PSs and SCs (submarine chasers), minelayers and minesweepers, landing ships and landing craft, and the endless list of tenders, transports, ammunition ships, oil tankers, hospital ships, and so on which form the Auxiliary fleets. Further, many of these types required major changes as time went on to adapt them to the developments of the war.

Over a five-year period 87,863 ships, totaling 8,171,758 tons, were built for the Navy. In this same period the Navy acquired from other sources 2,756 vessels of 5,846,052 tons. The five-year program thus added 90,619 vessels to the Navy, with a tonnage increase of 14,017,810. Included in these figures were 1,188 combatant vessels displacing 3,512,462 tons; nearly 4,500 mine craft, patrol craft, and Naval auxiliaries exceeding 6,000,000 tons; and more than 82,000 landing craft totaling nearly 3,000,000 tons.

The foregoing statistics represent merely the result of this tremendous shipbuilding program. The man-hours, the physical exertion, the oftentimes physical and nervous exhaustion, cannot be measured statistically. For each worker in the shipyards there were two workers in the various satellite industries which provided electronics gear, steam and diesel propulsion machinery, fire-fighting equipment, anti-fouling paints, fuels, plastics, degaussing cables, shock-proof equipment of all sorts, life saving gear, and so forth.

The precision with which this tremendous productive effort had to be scheduled is perhaps best illustrated by the 45,000-ton battleship *Wisconsin*, which was commissioned at the Philadelphia Navy Yard on April 16, 1944. More than 30,000 plans and nearly 3,000,000 man-days of labor were required for the construction of this ship. Before her crew arrived to begin outfitting her for sea, welders had fused 4,000,000 feet of steel, riveters had driven 1,000,000 rivets, fitters had laid 422,000 feet of piping, electricians had installed 1,220,000 feet of wiring, and painters had applied 500 tons of paint.

Within the *Wisconsin's* massive hull and superstructure were installed 900 electric motors, 2,000 telephones, 210 pumps, and 426 tons of ventilating ducts. To provide accommodations for her 173 officers and 2,738 enlisted men, 64 cabins and staterooms and 75 different compartments for berthing the crew had to be built into the ship. In addition, there were 29 washrooms, 18 messing spaces and space for tons of stores of all sorts. Galley equipment adequate for a big hotel was provided to assure adequate, well-cooked and appetizing food for the whole ship's company. Fire protection was provided by main pumps capable of forcing 4,800 gallons of water a minute through her fire mains. Sprinkler systems were installed in many of her 1,000 watertight compartments.

Only by multiplying the problems encountered in the construction of the *Wisconsin* many thousand times, and adding such factors as time, weather, and geography, can the scope of the Navy's wartime shipbuilding program be visualized. To the toil of labor and the direction of management were added the services of virtually every profession. Bottlenecks in the transportation or allocation of materials had to be broken. The assured availability of the smallest item for the largest ship required, in addition to the designer, the energies of countless lawyers, accountants, and management engineers, as well as the mechanic working at his machine. The landing craft program alone required over 4,000 contractors and some 30,000 subcontractors.

To the total of 16,000,000 horsepower of both steam and diesel engines in the entire Fleet in the Fall of 1941 were added over 30,000,000 horsepower of diesels alone in little more than three years.

On December 7, 1941, there were 20 radar installations in the Fleet. Before the war ended, every one of the Navy's major warships and auxiliaries had one or more radars installed. Including radio, radar, and underwater sound equipment, more than 35,000 pieces of equipment were produced for the Navy's ships and its shore establishments. To this must be added over 10,000 pieces of electronics equipment supplied to the Marine Corps.

Ship and equipment maintenance posed problems almost as difficult. Repair-part depots had to be established throughout the world. Nearly 10,000,000 square feet of storage space were needed for the more than 200 acres of repair parts that had to be on hand to fulfill 10,000 repair-part requests per month for nearly 250,000 pieces of equipment.

The defeat of both Germany and Japan permitted halting a large part of the wartime program. Thousands of contracts were terminated, starting even before the formal surrender of Japan. Thousands more were terminated as inventories of stocks on hand permitted. By the end of 1945 only 57 private shipyards were engaged in ship construction, and by the end of 1946, this figure was further reduced by additional cancellations and by completions of contracts to 10. Thus, with the 10 naval shipyards, there are now 20 shipyards engaged in naval construction—the same number as began the emergency program in June 1940. So ends a six and a half year cycle, unprecedented in the shipbuilding annals of any nation.

The table which follows illustrates the precipitate drop in ship construction. The last full year of war, 1944, is compared with the first full year of peace, 1946. Ships are listed by major groupings, and the figures represent both the number of ships completed and the tonnage thereof.

	1944		*1946*	
	No.	*Tons*	*No.*	*Tons*
Combatant	379	1,047,000	73	425,000
Mine Craft	178	102,000	0	0
Patrol Craft	390	56,000	6	1,000
Auxiliaries	235	329,000	43	153,000
Landing Craft	37,502	1,514,000	21	12,000
District Craft	521	128,000	48	12,000
New Construction—Total	39,205	3,176,000	191	603,000

The majority of ships completed in 1946 were combatant ships. Thirty-eight were destroyers of the 2,200-ton *Allen M. Sumner* Class or the 2,425-ton *Gearing* Class. Fourteen were fleet submarines of 1,525–1,570 tons standard displacement. The table which follows sets forth the names of the larger combatant ships, carriers and cruisers, which were completed during 1946. Completion dates, building yard, and hull numbers are also included.

Name & Hull No.	*Builder*	*Completed*
27,100-ton Carriers:		
USS Leyte (CV-32)	Newport News S B. & D.D Co. Newport News, Va.	11 Apr. 1946
USS Kearsarge (CV-33)	New York Naval Shipyard	8 Mar 1946
USS Tarawa (CV-40)	Norfolk Naval Shipyard	26 Jan. 1946
USS Valley Forge (CV-45)	Philadelphia Naval Shipyard	15 Nov. 1946
USS Philippine Sea (CV-47)	Bethlehem, Fore River Quincy, Mass.	3 May 1946
14,500-ton Light Carrier		
USS Saipan (CVL-48)	New York S.B Corp.	10 July 1946
13,700-ton Heavy Cruisers		
USS Oregon City (CA-122)	Bethlehem, Fore River	15 Feb. 1946
USS Albany (CA-123)	Bethlehem, Fore River	14 June 1946
13,600-ton Heavy Cruiser		
USS Toledo (CA-133)	New York S.B. Corp.	24 Oct. 1946
10,000-ton Light Cruisers		
USS Manchester (CL-83)	Bethlehem, Fore River	25 Oct. 1946
USS Galveston (CL-93)	Cramp S B. Co., Philadelphia	24 May 1946
USS Huntington (CL-107)	New York S.B. Corp.	21 Feb 1946
6,000-ton Light A A. Cruisers		
USS Juneau (CL-119)	Federal S.B. & D.D. Co. Kearney, N.J.	14 Feb. 1946
USS Spokane (CL-120)	Federal S.B & D.D. Co.	14 May 1946
USS Fresno (CL-121)	Federal S B. & D.D. Co.	25 Nov. 1946

One of the factors which influenced the decision to complete those ships upon which considerable work had been done by the end of the war was that ships completed early in the war had been hard used. Many of the 27,000-ton *Essex*-Class carriers, and the 10,000-ton *Cleveland*-Class cruisers, for example, though not old in years, are old in service. Spearheading our Pacific offensives, some of these ships had steamed 100,000 or more miles at high speed without major overhaul. The wear and tear of three or four years of war service was found to be roughly equivalent to twelve to fifteen years of normal peacetime cruising. Maintenance and operating costs of the older wartime ships are consequently higher. Many of these ships had suffered heavy damage as the result of enemy action, and had been repaired hurriedly to get them back into action.

To minimize peacetime costs and to protect the government's investment in ships partially constructed, the Congress approved the completion of certain carriers, cruisers, and destroyers, even though numerous sister ships had been constructed during the war. When completed, these new ships would take their place in the Navy's postwar active fleets. Many of the older "new" ships have accordingly been assigned to the Reserve and Inactive Fleets.

Long before the war's end, the Navy had made plans to protect its multi-billion dollar investment in national security by preserving its under-age combatant vessels in inactive status. Various types of auxiliaries and landing craft are similarly being preserved against their need in a future national emergency.

The 1975 vessels of the Reserve and Inactive Fleets cost some $10,000,000,000 to build. However, by efficient and economical preservation techniques perfected by the Bureau of Ships during World War II, this multi-billion dollar investment in national security will be maintained at but a fraction of the initial cost of construction.

The economy of the Navy's preservation techniques may be illustrated in terms of money, labor and time. The initial cost of inactivating a $60,000,000 aircraft carrier is approximately $300,000. Annually thereafter, the maintenance costs are approximately $10,000. This same carrier, which was built in two to four years during the war, and required over 2,000,000 man-days of labor, could be made ready to go back into service within 30 days, if necessary. Begun in late 1945, the program of preserving these ships was approximately 65 to 70 percent complete by the end of 1946 and will be completed early in 1947.

In addition to the program of inactivating ships for future service, the Navy is disposing of large numbers of vessels which are obsolete, or badly damaged, or of types no longer needed in the numbers on hand. The degree of this program of disposal of surplus vessels is indicated by the following figures. At the end of 1940, there were 1,243 vessels on hand; in 1941, it increased to 2,789; in 1942, to 11,351; in 1943, to 29,121; in 1944, to 59,755; and by June 30, 1945, there were 67,952 vessels on hand. The on-hand figures do not include ships lost, or vessels transferred or leased to other nations or other government agencies. By January 1, 1947, excluding vessels already disposed of and vessels in the process of disposal, the Navy will have 17,024 vessels on hand, totaling 8,550,000 tons.

Ships still under construction in 1947 will be built at a far less strenuous pace than in wartime. With a five-day working week and an eight-hour working day, completion will be delayed, but the man-hours of labor required should be reduced.

As part of the over-all fiscal policy of curtailing cash expenditures in order to balance the national budget, relieve inflationary pressures, and release men, materials, and transportation facilities for housing and other essential programs, it was announced in August 1946 that the delivery of five ships then building in three Naval Shipyards would be delayed for approximately a year. The Naval Shipyards and the ships affected by this delay are as follows:

New York Naval Shipyard	*USS Oriskany* (CV-34)
Charleston Naval Shipyard	*USS Bryce Canyon* (AD-36)
Boston Naval Shipyard	*USS Wagner* (DE-539)
	USS Vandivier (DE-540)
	USS LST-1154

The construction of eleven ships building in six private shipyards was to be continued, but at a somewhat slower pace.

Planning a reduction in expenditures by delaying the construction of these vessels, the Bureau of Ships had to consider the backlog of shipbuilding and repair work in the private as well as the Naval Shipyards. Although the Naval Shipyards had suffered heavy reductions in force as war work was

completed and expenditures were reduced, the three yards concerned were all assured of sufficient repair work to permit them to retain a nucleus of their more skilled civilian workmen. The prospect of continued and stable employment in the private shipyards was not as bright. It was feared that if the remaining Navy contracts in these yards were suspended or deferred, irreparable harm would be done to the shipbuilding industry. Moreover, if once delayed, the ultimate cost of completing the ships building in the private yards would probably be greatly increased.

The construction of two other ships was also delayed during 1946, but for different reasons. They are the 45,000-ton battleship *Kentucky* and the 27,000-ton battle cruiser *Hawaii*. On September 8, 1946, marking a new era in the striking power of naval warships, it was announced that these two ships would be the Navy's first guided-missile warships. It is still too early, however, to make any forecast of the ultimate design characteristics of these ships, other than that they will be guided-missile warships.

A new class of three heavy cruisers is under construction, the *Des Moines*, the *Salem*, and the *Newport News*. They will displace 17,000 tons, whereas the previous *Baltimore*-Class heavy cruisers displaced only 13,600 tons. Not only will these three new heavy cruisers be larger than any ever built before, but they will carry to sea a new rapid-firing eight-inch gun. Two of these new heavy cruisers, the *Salem* and the *Newport News*, will be air-conditioned in living and berthing spaces. A development based upon war experience, these experimental installations will probably lead to the air-conditioning of all major combatant ships in the future.

Two new light cruisers, the *Worcester* and the *Roanoke*, are also under construction. The largest light cruisers ever constructed, they will displace 14,700 tons. But the biggest difference between these cruisers and their 10,000-ton *Cleveland*-Class predecessors is in their armament. These ships will mount twelve 6-inch dual-purpose rapid-firing guns in twin turrets—three forward and three aft They will have no 5-inch A.A. battery, but will depend upon an array of smaller A.A. weapons for close-in work against such planes as the 6-inchers may have failed to keep at a respectful distance.

Most of the ships now under construction are scheduled for completion during 1947.

EDWARD L. COCHRANE.

SHOOTING. Frank Bennett of Miami, Florida, an airlines pilot, annexed the highest prize in trapshooting—the Grand American Handicap—in the annual tournament at Vandalia, Ohio, but only after breaking 24 out of 25 targets in a three-way shootoff after he, John McHale, London, Ontario, and J. L. Nicolai, Denver, Colorado, had tied with 98 x 100.

Mrs. Roy Meadows of Grimes, Iowa, annexed the top award for women with 20 x 25 after a deadlock with Mrs. Rose Waite, Lakewood, Ohio. Among other major winners were Vic Reinders, Waukesha, Wisconsin, who retained honors as Champion of State Champions and annexed the pro-amateur award and Mrs. Ruth Knuth, Indianapolis, who kept her role as queen of the women State champions.

The Great Eastern, most important event of skeet shooting—last held in 1942—was not renewed, the only major skeet meet of the year being staged at Indianapolis where Charles Poulton, San Antonio, Texas, won with a score of 75 straight after tying three rivals at 100 in regular competition.

The national rifle and pistol championships, following a lapse since 1941, were put on at Camp Perry, among the major winners being Harry Reeves, Detroit, who successfully defended his all-around pistol laurels. Gene Moore, Washington, Pennsylvania, led the small-gauge rifle marksmen.

THOMAS V. HANEY.

SIAM. A constitutional monarchy in southeastern Asia; occupied by Japanese armed forces from December, 1941, until the surrender of Japan in September, 1945. The national name, Siam, was restored by the Government in 1945 in place of Thailand which had been the designation of the country from 1939 to 1945 To the natives the country retains the name, Muang Thai (Land of the Free). Ruler: King Phumiphon Adundet (born December 5, 1927), proclaimed King on June 9, 1946, following the death of his brother, Ananda, on June 9, 1946.

Area and Population. Siam's area amounts to 200,148 square miles. The estimated population on Mar. 31, 1940, was 15,718,000. Chief cities: Bangkok (capital) 750,000 inhabitants in prewar times, Chiengmai 544,000, Ayuthia 300,000. Nine-tenths of the people are Siamese In December, 1941, there were 500,000 Chinese, 500,000 Indians and Malays, 60,000 Cambodians, and some 2,000 Europeans resident in the country.

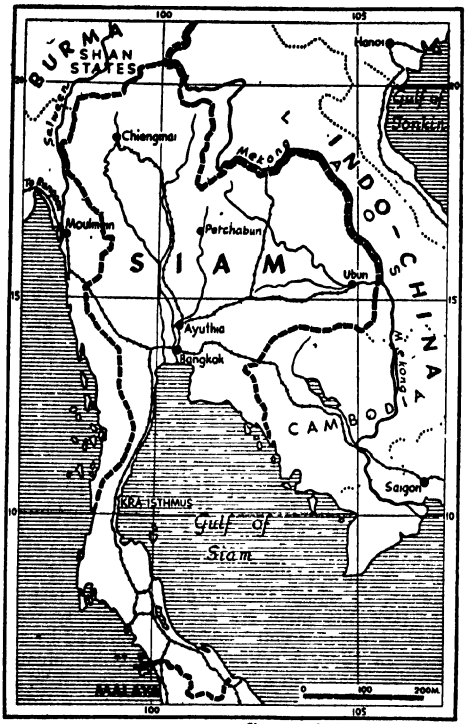
Government. The constitution of Dec. 10, 1932, transformed Siam from an absolute into a limited monarchy Nominally the King exercises executive power through a State Council (Cabinet) and legislative power through an Assembly of 182 members, to which the State Council is responsible Half the members of the Assembly were elected by popular vote and half nominated by the Crown. In 1946, a constitutional revision created an Upper House, in addition to the Assembly. At the same time, the members of the Lower House became entirely elective as the system of nominating one-half the Assembly was abolished.

Events, 1946. Under the pressure of demands from Great Britain, France, and China, Siam could view 1946 as one of the more critical years in her history. The end of the war found Siam in a dubious position; Great Britain and France undertook to deal with her as a defeated nation because of the Axis treaty made by Premier Songgram immediately after Pearl Harbor, while the United States, never having declared war on Siam and having extensively participated with the Siamese underground, adopted a softer, more conciliatory attitude toward Siam's dilemma.

Siam entered her postwar period with the signing of a peace treaty on January 1 with Great Britain and India and the signing of letters of agreement with Australia for recompense to Australian citizens and interests for damages suffered. In the terms of the settlement, Premier Seni Pramoj's government agreed to return to Great Britain all territories seized after December 7, 1941, make compensation for damages to British subjects, restore and maintain all British properties, permit British commercial concerns to resume business, and renewed British concessions on navigation and civil air services In addition, Siam agreed to pay reparations for damages done to British property by Allied bombing and sustain the 100,000 baht daily cost of the British occupation forces.

The most important economic provisions of the treaty concerned a free gift of 1,500,000 tons of rice to Great Britain. Since Siam is dependent on

rice exports, the loss of this quantity, in addition to the occupation and reparations payments, forced Siam to rely on Britain for economic aid. Actually, the treaty provisions placed Siam's economic life in the British orbit. In another clause Siam agreed to place her major export commodities of rice, tin, rubber, and tea under international control until September 1947.



Foreign Policy Association

Politically, aside from the agreement on prewar frontiers, Siam gave assurance that no canal would be constructed across the Kra Isthmus without prior consent of Great Britain.

In the international field, Great Britain agreed to support Siam's candidacy to the United Nations, while Siam promised to collaborate with international arrangements for her security approved by the United Nations Security Council.

The completion of the treaty was followed on January 5 by the United States–Siam resumption of diplomatic activities after nearly a four-year break. Further ties were strengthened at the end of January by Siam's agreement to recognize the treaties and other international agreements, including the commercial treaty of 1937 and the extradition treaty of 1927, in force with the United States before the outbreak of the war.

In Siam's first postwar election, in which all persons over 20 years old were permitted to vote, with no restrictions on race, sex, or literacy, Khuang Abhaiwong, Premier during the last year of the Japanese occupation, succeeded Seni Pramoj as head of the cabinet. Pramoj, however, was retained as Foreign Minister.

Many of the members of the new Assembly were drawn from the anti-Japanese resistance movement. Representatives of the Regent, Luang Pradit, who had worked for the anti-Japanese movement, found no seats in the Assembly, partly because they were not nationally popular, but mostly because of a rift that had developed between Abhaiwong and Pradit after the Japanese surrender.

The new regime entered power to find themselves beset by various difficulties. Siam's status could not be clearly defined until treaties were concluded with France and China. The Siam-China issue was irritated by the presence of a Chinese population in Siam, particularly in towns near Bangkok, where anti-Chinese incidents arose. Economic difficulties were intensified by the terms of the Anglo-Siamese treaty, which seriously impeded Siam's ability to pay for imports with exports. Shortages were most acute in medical supplies, textiles, paper, and leather products.

The Assembly was further confronted by the necessity of voting on constitutional changes, including the vesting of legislative powers in a bicameral Assembly. The Lower House, elected directly by the people, held the responsibility of selecting the Upper House, to be composed of mature, educated men. With the return to Siam of King Ananda in December of 1945, the Regency of Pradit formally ended and the controversy of Monarchy versus Republic loomed as an important issue.

During a debate on a price-and-wage control bill in the assembly, sponsored by the anti-government Cooperative party on March 18, Premier Abhaiwong and his cabinet resigned, despite a favorable vote of confidence by the not too progovernment Assembly. Within a week, former Regent Nai Pride Phanomyong was chosen Premier by the Assembly. When King Ananda Mahidol opened the new Parliament on June 2, the Premier followed the constitutional requirement and tendered his resignation. The Assembly selected him Premier on June 7 and submitted his nomination to the King for formal appointment.

On the day previous to his nomination, Phanomyong announced that the United States had agreed to release all United States-held Siamese assets. The diplomatic conflicts with France, heightened by territorial complications, were not so easily settled as were the British claims. Even before the end of the war, France indicated a strong desire for the return of those portions of Cambodia and Laos which had been ceded to Siam in 1941 under Japanese pressure. Britain, persuaded by France that any change in the international status quo of a colonial empire would affect all empires, supported the French request that Franco-Siamese negotiations be conducted simultaneously with the British treaty conversations. Siam, loath to give up those areas in which strides had been made in incorporation and cultural assimilation, contended that because of Vichy consent to the territorial transfer, there had been no state of war between France and Siam. Originally, France moved into Cambodia in 1907 and absorbed three provinces. The lack of an agreeable premise on which negotiations could be based eliminated the possibility of a Franco-Siamese treaty. The United States' attitude, shaped by the State Department's refusal on January 16 to recognize the wartime territorial acquisitions from Indo-China, favored the claims of France.

By late May, the disagreement showed signs of a crisis. French troops, stationed in Indo-China, carried an attack supported by planes and artillery across the Mekong River near Vientiane. Heavy fighting occurred between more than 800 French troops and Siamese police and civilians. On May 28 Siamese Foreign Minister Khuang Abhaiwong announced that his government hoped to negotiate directly with France on the disputed Cambodia

and Laos territories. Pride Phanomyong, President of Siam's Council of Ministers, telegraphed an appeal to the United Nations Security Council on May 27, charging France with "concerted action against Siamese sovereignty and the preservation of peace" and asked the United Nations for "your sympathy, your assistance and cooperation in re-establishing peace." French reports termed the charges of aggression "sheer fantasy," but admitted that some French troops did cross the river to pursue Indo-Chinese and Siamese bandits who had been pillaging towns in the French area. United States and British spokesmen said they would support Siam's right to present the case to the Security Council, under Article 35 of the Charter, which permits a non-member nation to file complaint against a member nation if it is willing to accept a peaceful settlement of a dispute.

France officially denied any military aggression on May 30 and said that the small punitive incursion was made necessary by the "manifest inability of local Siamese authorities to control the activity of armed bands of Laotian and Annamite rebels." Identical notes were sent by the French Foreign Office to the British and United States Ambassadors in Paris, requesting that Siam be informed that the Laos and Cambodia territories acquired from Marshal Petain's Vichy Government in 1941 had not yet been returned to France.

Siam formally applied for membership in the United Nations on May 31 and reiterated its complaints against France It assured the United Nations Secretary General that the Siamese Government and people were ready "to assume their full responsibility in carrying out the obligations as set forth in the Charter of the United Nations" On the same day Siam closed sections of the Siam-Indo-China border and an American mission reported that the French troops had withdrawn across the Mekong River.

The death of Ananda Mahidol, 20-year old King of Siam, on June 9, relegated the Franco-Siamese border quarrels to temporary oblivion Ananda was found in the royal palace with a bullet wound in his head and the authorities pronounced the death "accidental" Twelve hours later the Parliament unanimously named his brother, Prince Phumiphon Adundet, 18, as the new King, and a week later elected Prince Chainat and Phya Manaveraj Sevi, speaker of the old National Assembly, to a Council of Regency to guide the King in matters of state

The nature of the King's death caused much suspicion and doubt throughout the nation. Leaflets were distributed accusing the Premier and his Government clique of plotting to slay the king and as general tension quickly mounted, Pride Phanomyong acted to quell possible unrest by applying censorship to the press and naming General Abdul Dejarat, powerful leader of Siam's wartime underground forces, commander of the Siamese Army.

Public suspicion of the popular king's death forced a post-mortem hearing and on July 1, a twenty-man medical investigation board reported that the King was probably assassinated. They refuted the Government's verdict of accidental death, asserting this was the least likely of three possibilities. The American representative, Dr. Cort, said, "It looks like murder."

As the controversy over the Franco-Siamese border clashes diminished, France renewed her demands for the return of the disputed territories. The order forbidding French troops from entering Siam was rescinded as a spokesman for Admiral Georges Thierry d'Argenlieu, French High Commissioner for Indo-China, said that France would resort to "force of arms" if the dispute could not be settled peacefully.

The Siamese Government formally submitted the dispute to the judgment of the United Nations Security Council on July 15 in a message that told of the "profound anxiety" that had arisen in Bangkok over the border situation. Accusing France of perpetrating incidents tending to disrupt the peace, Siam agreed "to accept any solution proposed by the Security Council in regard to immediate matters at issue as well as in regard to all matters, territorial or otherwise, connected therewith." A Siamese delegation to appeal the dispute was expected to reach the United Nations after elections in Siam were completed.

Siam tested its new democratic Constitution on August 5 in an election to fill the 88 seats in the Lower House of Parliament, which were vacated after the new Constitution abolished the appointive memberships made by the King. A large majority of these former House members were selected by the old Assembly to fill the Upper House. Premier Pride Phanomyong's Constitutional Party, the strongest party in Siam, was opposed by the Democratic Party, led by Khuang Abhaiwong, member of the mission to the Security Council and former Premier.

The results of the election showed a clean sweep for the Constitutional Party, which won 70 of the 88 seats, with the remainder of the seats being about equally divided between the Democratic and Co-operative parties. As was customary, Phanomyong resigned and was succeeded by Rear Admiral Thawan Thamrong Nawasawat, former Judge Advocate of the Siamese Navy and one of the leaders in the 1932 revolution which established a constitutional government.

With only one exception, the new Cabinet of 18 members was composed of elected members of the National Assembly. The make-up of the Cabinet showed eleven members of the Phanomyong Cabinet and five from the wartime ministry of Premier Pibul Songgram, who had collaborated with the Japanese Eight members, including Foreign Minister Direck Jayanama, were prominent in the pro-Allied resistance movement.

In domestic affairs the new Government was handed the problem of rehabilitating Siam's overall economy, particularly its war-deteriorated railroads and industries, and its rice production. Immediate efforts to increase rice production were begun with the distribution of seed rice and fertilizer.

On August 14, the same day that Prince Subha Svasti arrived in Washington to prepare Siam's representations in the border dispute, the Soviet Union and France expressed opposition to Siam's application for admission to the United Nations. While the Soviet objection was based on the absence of diplomatic relations with Siam, F. De Rose, the French delegate, stated that Siam still maintained sovereignty of those territories taken with the aid of the Japanese. Though the dispute was in the process of negotiation, he said, France considered that a state of war still existed between the two countries and could not sanction Siam's admission to the United Nations because it would constitute "acquittal of its policy of aggression in the past before having proved by its deeds its willingness to repair the damage it has caused."

Speeches favoring Siam's admission were given by the United Kingdom, China and the United States.

Since the territorial dispute was making no prog-

ress in the form of a settlement, France proposed on August 1 that the dispute be arbitrated by the International Court of Justice at The Hague and requested the Siamese to withdraw from the contested area and leave the administration of it to a third power to be named by the United States. Until the International Court fixed the nationality, the area would be governed by the interim administration, France suggested.

On August 26 the French Ministry of Foreign Affairs announced withdrawal of the arbitration offer and said that only evacuation of Siamese troops from the disputed area could avert the possibility of military action. The Ministry explained that the withdrawal was provoked by an "outrageous" attack on the Indo-Chinese border town of Siemreap on August 7 made by Siamese bandits. The ministry added that any further acts of territorial aggression would meet retaliation by French troops. Within a few days of the announcement, four French warcraft were reported in Siamese territorial waters.

The territorial dispute between Siam and France approached a stage nearer settlement on October 14 when the Siamese Cabinet agreed to return the four controversial frontier areas in Cambodia and Laos to French Indo-China. After a 91–20 vote of approval by Siam's Chamber of Deputies, the two nations signed an agreement on November 17 providing for the immediate establishment of a Franco-Siamese commission to study the frontier problem and recommend settlement. Representatives of three neutral nations will serve on the commission. Subsequent negotiations on the disputed areas provided for the gradual withdrawal of Siamese officials who will be replaced by the French.

By unanimous action of the United Nations General Assembly on December 15, Siam became the fifty-fifth member of the United Nations.

On December 10 the United States Department of State announced an agreement with Siam, Australia and Great Britain on the distribution of Siamese tin. Aimed to stimulate a greater flow of tin to world markets, the agreement included the following provisions:

1. The combined tin committee will determine allocations. The United States will get 2,000 tons of tin metal for 1946 and probably substantially more next year
2. The United States and Britain will buy equal quantities of Siamese tin concentrates until March 31, 1947
3. A four-member commission will be set up to speed movement of Siamese tin metal stocks and concentrates to world trade channels
4. The price for Siamese tin will be based on prices in Malaya.

Education and Religion. There is free and compulsory primary education, but only about 40 percent of the adult population are literate. As of Mar. 31, 1939, there were 12,809 government, local public, and municipal schools, with a total of 1,567,745 pupils. Bangkok has two state-controlled universities. The religious composition of the population in 1937 was: Buddhists, 13,752,091; Mohammedans, 626,907; Christians, 69,227; others, 15,880.

Production. Over four-fifths of the working population is engaged in agriculture and fishing. The chief crop is rice, which is both the main article of diet and the principal export. Production in 1940–41, 4,923,350 tons of cleaned rice. Other leading crops are tobacco, coconuts, pepper, and cotton. Rubber and tin ore are the most important products after rice. Livestock (1938): 5,711,720 bullocks, 5,551,232 buffaloes, 385,565 horses, and 10,970 elephants. Tungsten, gold, silver, coal, lead, antimony, copper, rubies, and sapphires are produced. Teak lumbering is an important industry. Manufacturing is largely restricted to lumber and rice milling.

Foreign Trade. For the year ended Mar. 31, 1941, merchandise imports were valued at 163,400,000 bahts (128,200,000 in 1939–40); exports, 257,600,000 bahts (208,700,000). Values of the chief 1940–41 exports were (in millions of bahts): rice, 142.8; tin ore, 48.4; rubber, 39.3; teak wood, 5.9. Rice exports totaled 1,625,400 metric tons; rubber 43,700 metric tons.

Finance. The budget was changed to the Christian calendar year basis beginning Jan. 1, 1941. Ordinary budget estimates for 1942 placed receipts at 210,000,000 bahts and expenditures at 259,000,000; in 1941 they balanced at 138,000,000 bahts. There was a treasury reserve estimated at 31,857,465 bahts on Jan. 1, 1942. Public debt on Sept. 30, 1941, totaled 81 million bahts (internal 26.2 million bahts; external 54.8 million bahts). The baht exchanged at an average of $0.3515 in 1940.

Transportation. At the time of the Japanese invasion, Siam had about 2,048 miles of railway line, 5,574 miles of highways, and state-controlled airlines linking the principal cities. Air connections with Japan were opened in 1942. During 1939–40 a total of 960 vessels of 1,425,989 tons entered the port of Bangkok.

JOSEPH P. BLANK.

SIERRA LEONE. A British West African colony (271 square miles) and protectorate (27,669 square miles, including those areas of the colony treated as protectorate). Total area, 27,940 square miles. In 1940 the total population was estimated at 2,000,000. Capital, Freetown (80,000), which is an important naval base. The colony and protectorate are administered by a governor, assisted by an executive council and a legislative council of 23 members, three of whom are elected and three of whom are paramount chiefs of the protectorate.

Production and Trade. The mining industries are important and produce diamonds, gold, and iron for export, as well as chromite and platinum. Kola nuts, palm oil, palm kernels, groundnuts, piassava, ginger, rice, cassava, and hides are produced. Palm kernels, kola nuts, palm oil, and ginger are the chief exports. Textiles, spirits, hardware, and tobacco are the principal imports. A large proportion of the imports are obtained from the United Kingdom.

SILVER. Mine production of silver dropped in 1946, but its place in the headlines was gained principally as a result of a prolonged controversy in Congress as to the price at which the United States treasury should buy and sell the metal. The issue had added importance, in that it indirectly affected the nation's monetary system.

Congressional representatives of silver-producing states battled to increase the price which the Treasury pays for newly mined silver from 71.11 cents per fine oz. to $1.29, its full monetary valuation. The latter price, it was contended, also more nearly represents the price which would prevail in a "free market" than the 71.11 cents figure. Leading the fight against the rise were manufacturers using silver, who wished to keep the price low and who also wished to regain the privilege of purchasing from the Treasury's stocks of silver not earmarked as backing for currency ("free silver"). Sales of Treasury "free silver" for manufacturing had been made since July 1943, until legislation permitting such sales expired December 31, 1945. After much legislative maneuvering, the conflict of the silver mining and silver manufacturing interests ended

in compromise with legislation by which the Treasury's purchase price was raised, in effect, to 90.5 cents and sale of "free silver" for industrial uses was permitted at the same price. A bill carrying these provisions was signed by the President, July 31, with purchase provisions covering silver mined after July 1. On August 1, OPA raised its ceiling on foreign silver to conform with this new price level and on Nov. 1, it removed silver from control.

With sale of Treasury "free silver" suspended from the end of 1945 until August 1, the supply of silver for industrial purposes was critical. It had been estimated that industry in the United States could consume 125,000,000 oz. during the year, with domestic production plus imports totaling only about 80,000,000 oz. Aside from the manufacture of silverware and jewelry, the shortage severely affected the manufacture of certain types of electrical equipment, for which silver is used for contact points, bearing alloys, and photographic film and paper. At the time the bill authorizing Treasury sale was passed, it was estimated that 225,000,000 oz. of "free silver" might be made available.

Paradoxically, following authorization given the Treasury to sell "free silver" for industrial purposes, and the concurrent higher price, few buyers appeared for the Treasury metal. Large amounts of foreign silver appeared following the removal of price ceilings, and at the end of the year the free market price was 83 75 cents per oz , far under the Treasury's price. The quantities of foreign silver thus becoming available appeared sufficient to meet all immediate demands.

Silver is produced chiefly as a by-product of copper, lead, zinc, and gold mining Mining of the three first named metals was greatly contracted during the first half of the year by strikes in many of the largest mines and at the smelters serving them, and throughout the year by manpower shortage and high costs making working of marginal deposits uneconomic. Gold was mined on a relatively small scale during the year. Thus mine production of silver for the year dropped to approximately 21,000,000 oz (1945: 29,000,000 oz) the lowest since 1871. Principal producing states were Idaho, Utah, Arizona, Montana and Colorado.

CHARLES T. POST.

SKATING. Gretchen Merrill, a youthful blonde from Boston endowed with the rare combination of beauty and athletic prowess, retained her crown as national figure-skating queen last year, and in so doing became the first to win the women's title four consecutive times. Her poise and skating ability enabled her to finish far ahead of her field in the United States championships at the Chicago Arena and give her the laurels for the sixth time in nine years. Miss Janette Ahrens of St. Paul was runner-up.

Miss Barbara Jones, Philadelphia, captured honors among the junior women while the novice event went to Miss Gloria Peterson, Seattle. The men's championship, abandoned during the war years, returned to the program and the title was won by Richard Button, of Englewood, N.J., Miss Donna Pospisil and J. P. Brunet of New York, took senior pairs honors and Miss Anne Davies and Carleton Hoffman, Jr. of Washington were judged best of the senior dance teams. The junior pairs championship was won by little Yvonne Sherman and Robert Swenning, New York City couple.

Bob Fitzgerald of Minneapolis returned from Army service and the flashy Air Corps veteran dominated the major speed-skating championships, dethroning a fellow townsman, Ken Bartholomew, in both the national and North American meets. Bartholomew placed second in both. Miss Elaine Gordon, Chicago, carried off the United States senior women's crown, and a Canadian skater, Miss Eileen Whalley, Winnipeg, took premier honors in the North American contests.

THOMAS V. HANEY.

SKIING. With the lifting of travel restrictions and the return of many stars from the armed forces this fast-growing sport had a busy Winter during 1946 and many championship events that had been missing since 1942 were back on the card.

Among the most colorful meets of the season was the national jump at Steamboat Springs, Colorado —where children are taught to ski soon after learning to toddle—and Alf Engen, veteran from Sun Valley, Idaho, captured the Class A crown with a leap of 259 feet, 11 better than the record for the Howelson Hill course, though 30 feet off the national mark established by the late Torger Tokle at Iron Mountain, Michigan, in 1942.

Engen's form and distance enabled him to amass 229 55 points, just enough to dethrone Art Devlin, defending champion from Lake Placid, New York, who had 229 45 Merrill Barber, Brattleboro, Vermont, placed third.

Other champions were Wahldemar Fahlstron, Lake Placid, Class B; Warner Schoor, Madison, Wisconsin, Class C, and Ernest Jacobson, Chicago, Veterans' group.

The United States downhill and slalom meets, held on Cannon Mountain at Franconia, New Hampshire, drew crack fields, and Barney McLean of Denver, with second places in both tests, won combined honors Steve Knowlton, a former ski trooper from Colorado, thrilled the thousands of onlookers with a daring, fast dash to victory in the downhill whirl to take that crown from McLean and a 20-year-old Army lad, Dick Movitz of Salt Lake City, captured the slalom Knowlton, fourth in the latter, was runner-up for the combined laurels.

Miss Paula Kann, North Conway, New Hampshire, annexed the Gibson Trophy for the fourth successive year when she placed first in the women's downhill test and Miss Rhona Wurtele, Montreal star, won combined laurels by taking the slalom and finishing fifth downhill. Miss Wurtele's 245 points for the two events was only two more than tallied by Miss Barbara Kidder, Denver coed, who had two second places to her credit

Listed among the big events of the year was the Eastern downhill and slalom meet at Stowe, Vermont, and Kristofer Berg, stocky Norwegian student attending Harvard, gave a sparkling exhibition for a sweep of the downhill, slalom and combined titles The Eastern cross-country grind was held at Laconia-Gilford, New Hampshire, and the Class A crown went to Allison Merrill, Andover, Maine, with Ralph Townsend, Lebanon, New Hampshire, the runner-up.

Another highlight of the campaign was the twenty-fifth anniversary carnival of the Sno Birds Club at Lake Placid, where Canada defeated the United States in 10-man team competition. Although Ralph and Paul Townsend took first and second in the langlauf and Ralph won combined honors, the Canadians outscored their rivals Lucien Laferte of Three Rivers, Quebec, annexed the jump as the visitors swept the first four positions to count heavily in that event.

Most of the major college meets were restored to the schedule. Dartmouth triumphed in the Middle-

bury and Vermont carnivals, but the Big Green had to be content with second honors when it played host to ten other college squads in its thirty-sixth annual games at Hanover, New Hampshire. McGill, with Kaare Olsen, Norwegian student, its big ace, captured the top prize at Dartmouth. University of Washington skiers defeated California for first place in the Vanderbilt intercollegiate meet at Norden, Calif.

Misses Rhona and Rhoda Wurtele, twin sisters from Montreal's Penguin Club, were among the year's best feminine performers and they helped Canada defeat a United States women's team at Lake Placid to give the Dominion girls the Kate Smith Trophy for the sixth time in ten seasons. Misses Kidder, Kann and Dorothy and Margaret Burden of McGill were others who ranked high.

THOMAS V. HANEY.

SLOAN FOUNDATION, INC., The Alfred P. Incorporated in 1936, the Foundation aids accredited schools and colleges in developing new "patterns" in economic education. On December 31, 1945, its capital assets were valued at $4,885,189.29. Up to the same date, the Foundation had made grants and donations amounting to $6,602,088.34 At present the Foundation is enabling colleges and universities to promote popular economic education through radio, recordings, motion pictures, books, and pamphlets, fellowships, and class instruction. Among such projects aided by the Foundation are: the University of Chicago Round Table of the Air, a weekly radio discussion of economic phases of national and international questions; the New York University Film Library, which distributes sound motion pictures and recordings; and the *Public Affairs* pamphlets, containing popular digests of current economic researches, issued continuously by the Public Affairs Committee of New York; and the New Tools for Learning Bureau of the New Jersey State Teachers College at Montclair, New Jersey, which produces dramatic radio programs illustrating economic institutions and principles for broadcasting by transcription.

In addition, the Foundation is currently providing support for seminars on current economic problems at New York University, American University, and at the Universities of Denver, Southern California, and California. Members of these seminars include graduate students and community leaders. The Foundation also lends its support to the Department of Government Management at the University of Denver.

In the field of applied economics, the Foundation aids the State universities of Kentucky, Florida, and Vermont in carrying on experiments designed to help low-income groups. The experiments aim to discover whether solely through instructing school children in simple, inexpensive ways of improving diet, housing, and clothing, the community level of living can be raised. To enable teacher-training institutions throughout the country to study these experimental centers at first-hand, special grants have been made to the American Association of Teachers Colleges for traveling fellowships.

During the year 1945 the Foundation made a special grant of $4,000,000 to Memorial Hospital for the erection and maintenance of the Sloan-Kettering Institute for Cancer Research. It is expected that this Institute will have been constructed and its staff assembled sometime in 1947.

SMITHSONIAN INSTITUTION. The affairs of the Institution are administered by a Board of Regents consisting of the Chief Justice of the United States, the Vice President, three members of the Senate, three members of the House of Representatives, and six citizens other than members of Congress.

Research and explorations, which normally form the major part of the Institution's program for the "increase of knowledge," have been curtailed, owing to wartime conditions. The new field expeditions that were carried on were concerned in the main with matters connected with the conduct of the war, or with commitments dating back to the prewar period, or with the improving of cultural relations with the other American republics.

The "diffusion of knowledge" is carried on by publication of the results of scientific research and exploration. The publications of the Institution proper and the bureaus under its administrative direction appear in 13 distinct series as follows: *Smithsonian Institution*, Annual Report (with general appendix made up of selected articles reviewing the year's advances in science), Contributions to Knowledge (suspended), Miscellaneous Collections, and special publications; *National Museum*, Annual Report, Bulletin, Proceedings, and Contributions from the National Herbarium; *Bureau of American Ethnology*, Annual Report and Bulletin; *Astrophysical Observatory*, Annals; *National Collection of Fine Arts*, Catalog; and *Freer Gallery of Art*, Oriental Studies Copies of all publications in these various series are distributed free to a large list of libraries, learned societies, and specialists throughout the world, and certain of the less technical publications, such as the Smithsonian Reports, are widely distributed among the general public.

The Smithsonian library, made up of 10 divisional libraries and 35 sectional libraries, now contains 918,460 volumes, pamphlets, and charts.

SOCIAL DEMOCRATIC FEDERATION, United States of America. A non-political educational and propaganda association, organized in 1937, devoted to spreading the principles of democratic socialism. National Chairman: Algernon Lee, New York, New York. Secretary: August Claessens, New York, New York. Headquarters: 7 East 15th St., New York, New York.

SOCIALIST LABOR PARTY. A political party that proposes that all socially needed land, industries and utilities be taken over by society and operated socially for use. National Secretary: Arnold Petersen; National treasurer: Paul Herzel. Headquarters: 61 Cliff St., New York, New York.

SOCIALIST PARTY. Worked on "Operation Socialism" campaign to build one hundred new branches and gain thousands of new members The party stressed the drive for Socialist unity, the building of a new mass party of labor and farmers, the abolition of the military use of atomic energy and the socialization of the industrial use of atomic energy, the need for an international agreement on national disarmament and the ending of all imperialism and totalitarianism as steps to a democratic world government.

Harry Fleischman, 303 Fourth Ave., New York 10, New York, National Secretary; Norman Thomas, Chairman National Action Committee; and William Becker, Labor Secretary.

SOCIAL SECURITY ADMINISTRATION. Both administrative and legislative developments in 1946 in the United States affected provisions for social insurance, assistance, and welfare services. Under the President's reorganization plan, effective July 16,

the three-member Social Security Board established by the Social Security Act in 1935 was abolished and most of its functions were transferred to the Social Security Administration. Set up as one of four major units of the Federal Security Agency, the Social Security Administration includes the three Bureaus formerly within the Social Security Board, which are concerned with old-age and survivors insurance, unemployment insurance, and public assistance, and also the Children's Bureau, which was transferred from the Department of Labor with all functions except those related to child labor. Besides its Federal functions in connection with social insurance, assistance, and welfare programs under the Social Security Act, the Administration also carries responsibilities for certain war emergency programs providing benefits, assistance, and maternity and infant care.

In 1946, for the first time since 1939, all existing programs under the Social Security Act were amended; some of the changes were minor technical amendments and some established temporary programs. The amendments, enacted in the closing days of the 79th Congress, followed public hearings by the House Committee on Ways and Means on proposals for changes in the provisions for old-age and survivors insurance, unemployment insurance, and public assistance. At the hearings, which were preceded by a report, *Issues in Social Security*, released in January by the Committee's technical staff, the Committee heard testimony from representatives of employer organizations, labor groups, State employment security and public welfare agencies, and many other groups. The Committee's report, which accompanied a bill introduced in the House on June 28, explained that the proposed amendments were limited in scope, because of the short time remaining for Congressional consideration and enactment of basic changes. A Senate amendment to the House bill added special Federal grants-in-aid for public assistance to low-income States, but this provision and others proposed by the Senate Finance Committee were removed by House and Senate conferees on August 1. The Social Security Amendments of 1946 became law on August 10. The Senate, on the day it passed the amendments, directed its Finance Committee to investigate all phases of the social security program, and to appoint an advisory council to aid in exploring the subject.

In line with its Congressional mandate in the 1935 Social Security Act, recommendations for improving the scope and adequacy of the programs for which the Social Security Administration carries Federal responsibility are presented to Congress in annual reports. The monthly *Social Security Bulletin* and its annual supplement, the *Social Security Yearbook*, present data on the operation of those and related programs.

Old-age and Survivors Insurance. Throughout the period since January 1, 1940, when monthly benefits became payable, jobs—which constitute the main source of economic security—have been plentiful. Among the 1,500,000 workers aged 65 and over who were fully insured on June 30, 1946, under this Federal program for industrial and commercial workers, only about 630,000 were receiving retirement benefits, an additional 100,000 had their benefits withheld, mainly because they were working in covered employment. In addition, many thousands of persons eligible for benefits based on a retired or deceased worker's wage record had postponed filing claims or were temporarily not receiving benefit payments because of income from covered occupations.

The number of persons receiving benefits almost doubled from December 1940 to December 1941, but the rate of increase in the rolls slowed in the defense and war periods. Although the increase was accelerated after the Japanese capitulation, the program served not so much as a stimulus to retirement as a resource for aged persons who could not hold or find jobs in covered employment and for widows of deceased workers and their young children who were not in the labor force.

From January 1937, when wage credits under this program first began to accumulate, to the beginning of 1946, some 41,500,000 living workers had acquired insured status. About 31,700,000 workers, on the other hand, had entered covered employment too recently to become insured or had had such frequent or long gaps between covered jobs that they had failed to gain or had lost insured status. Many of the latter were servicemen, who because of their service to the Nation did not earn the wage credits they might otherwise have had in covered employment. Under the Social Security Act Amendments of 1946, however, their survivor's insurance protection will be maintained for a few years, while they are acquiring or reacquiring wage credits in employments under the program. The survivor benefits will be payable to survivors of any World War II veteran with the qualifying military service who dies or has died within three years of his separation from the service, provided the survivors receive no survivor benefits under the programs of the Veterans Administration.

In addition, the 1946 amendments continue the employer and employee contribution rate under this program at 1 percent each through 1947 and remove some of the anomalies, inequities, and administrative complexities that have been revealed during the program's operation.

In the calendar year 1945, about 46,400,000 workers earned old-age and survivors insurance wage credits in employment with 2,610,000 employers Workers and employers contributed $1,238,000,000 in the fiscal year 1945–46 toward financing the program. The assets of the old-age and survivors insurance trust fund amounted to $7,641,000,000 at the end of June 1946.

At that time, 1½ million beneficiaries were receiving monthly benefits, totaling $28,000,000 a

MONTHLY BENEFITS FOR FAMILIES IN RECEIPT OF BENEFITS UNDER FEDERAL OLD-AGE AND SURVIVORS INSURANCE PROGRAM AS OF JUNE 30, 1946

Family Classification of Beneficiaries	*Number of Families*	*Number Beneficiaries*	*Average Family Benefit*
Total	990,200	1,502,100	.
Families of workers in receipt of retirement benefits	632,000	840,600	
Worker only	427,500	427,500	$23 80
Male	343,300	343,300	24.80
Female	84,200	84,200	19.80
Worker and wife	193,100	386,200	38 80
Worker and 1 or more children	11,300	26,600	40.90
Worker, wife, and 1 or more children	100	800	(*)
Families of beneficiaries surviving deceased insured workers	358,200	661,400	..
Widow only	115,100	115,100	20.20
Widowed mother and 1 child	66,300	132,600	34 20
Widowed mother and 2 children	38,000	114,000	48.00
Widowed mother and 3 or more children	19,500	79,200	51.00
Children only	113,100	213,800	22.90
One or both aged parents	6,200	6,700	14 20

* No average shown because based on too few cases.

BENEFICIARIES, RECIPIENTS, AND PAYMENTS UNDER FEDERAL OLD-AGE AND SURVIVORS INSURANCE, STATE UNEMPLOYMENT INSURANCE LAWS, AND STATE PUBLIC ASSISTANCE PROGRAMS UNDER THE SOCIAL SECURITY ACT, BY STATE

State	Old-age and Survivors Insurance, Monthly Benefits in Force, June 30, 1946 [a]		Unemployment Insurance under State Laws		Public Assistance Under the Social Security Act, June 1946						
					Old-age Assistance		Aid to Dependent Children			Aid to the Blind	
	Number	Monthly Amount	Average Weekly Number of Beneficiaries, June 1946 [b]	Average Weekly Payment for Total Unemployment, June 1946	Number of Recipients	Average Payment	Number of Recipients Children	Families	Average Payment per Family	Number of Recipients	Average Payment
Total	1,700,700	$32,271,000	1,174,138	$18 45	2,108,216	$31 48	799,325	311,250	$53 71	57,615	$32 89
Alabama	25,100	378,000	14,316	16 16	38,686	18 18	18,916	6,752	28 59	850	18 24
Alaska	400	9,000	315	15 88	1,366	41 03	309	113	48 46	(c)	(c)
Arizona	5,200	95,000	2,029	14 33	9,748	38 78	5,260	1,821	39 49	531	46 59
Arkansas	11,300	163,000	3,649	11 99	27,579	17 02	12,156	4,539	28 26	1,194	18 98
California	116,200	2,364,000	149,444	18 91	162,308	47 66	20,160	7,985	88 80	5,904	57 95
Colorado	11,900	223,000	2,859	13 95	40,367	41 48	9,912	3,641	61 65	447	36 59
Connecticut	35,100	747,000	19,171	21 01	14,689	40 93	6,730	2,734	90 79	138	40.67
Delaware	4 500	88,000	1,850	16 20	1,187	19 27	783	273	75 47	48	30 46
District of Columbia	7,500	140 000	2 043	17 35	2,278	33 69	2,452	790	65 12	197	36 75
Florida	27,000	483,000	6,697	13 90	45,902	30 55	16,244	6,609	34 13	2,387	31.78
Georgia	24,400	354,000	6,884	14 62	69,739	13 00	12,130	4,780	27 30	2,099	15.76
Hawaii	4,100	69,000	155	20 30	1,497	25 15	2,064	659	71 78	62	28 23
Idaho	4,200	73,000	617	14 06	9,857	32 84	3,807	1,430	61.90	202	34.94
Illinois	113,100	2,260,000	100 941	18 64	124,889	33 98	52,988	21 785	68 50	4,986	35 15
Indiana	46,900	888 000	23 764	18 55	54,557	26 51	15,954	6,596	38 31	1,929	29 39
Iowa	21,600	375 000	4,828	15 51	48,357	33 96	9,206	3,579	33 86	1,220	38 95
Kansas	16,800	288,000	11,524	15 02	29,505	30 76	8,980	3,490	57 19	1,080	33 64
Kentucky	26 900	431,000	12,656	12 24	44,240	11 79	15,051	5,722	21.37	1,552	13 34
Louisiana	18,900	305 000	14 386	15 68	37,957	21 35	25,115	9,521	36 06	1,393	24 59
Maine	15,700	280 000	8 477	15 53	15,010	30 83	4,478	1,582	71 91	778	31 57
Marvland	24 100	444,000	30 041	18 87	11 546	28 28	11,058	3,822	37 86	454	31 93
Massachusetts	81,400	1,647,000	51,180	21 35	79,539	46 83	20 593	8,250	84 38	1,068	47.39
Michigan	78,200	1,576,000	97 351	20 71	89,453	33 55	40,327	16,859	69 02	1,330	36 21
Minnesota	25 600	494,000	11,531	16 66	54,177	33 82	13,083	5,141	53 99	947	40 11
Mississippi	9,600	132 000	2 550	12 79	27,540	16 62	8,940	3,400	26 27	1,641	23 00
Missouri	40.200	757,000	22,722	16 50	105,348	28 44	39,247	14,913	36 22	(d)	(d)
Montana	5,200	99,000	1,667	13 06	10,691	32 63	3,880	1,450	54 73	359	35 70
Nebraska	8,500	146,000	2,526	15 99	24,295	32 25	6,053	2,546	66 51	439	32.72
Nevada	1,400	28,000	661	17 87	1,947	38 84	(d)	(d)	(d)	(d)	(d)
New Hampshire	9,300	173,000	1,337	13 40	6,588	31 29	2,400	939	71 16	284	32 37
New Jersey	70.700	1,473,000	72 206	20 37	22,925	33 30	9,117	3,614	65 15	550	35 30
New Mexico	3,100	48,000	408	13 34	6,724	31 11	7,503	2,862	36 55	245	28 29
New York	213,300	4,239,000	144 385	19 26	104,162	37 60	69.797	28,789	81 16	3,088	42 59
North Carolina	29,200	419,000	11,492	11 07	32,916	13 94	17,559	6,432	28 03	2,587	21 09
North Dakota	2,100	35,000	231	16 55	8,712	35 03	4,129	1,481	61 14	119	35 59
Ohio	112 900	2,258,000	56,573	18 66	116,633	31 94	22,974	8,261	57 91	3,096	28 49
Oklahoma	14,400	242 000	11,267	16 64	86,691	35 50	48.279	19,780	35 02	2,014	36 69
Oregon	21,000	417,000	20 509	16 89	21 015	39 53	3,547	1,431	85 77	368	48 66
Pennsylvania	172.200	3,394,000	111,931	18 25	85,985	30 91	82,939	31,658	65 74	(d)	(d)
Rhode Island	16 200	334,000	14,635	17 23	7,568	35 49	4,525	1,767	68 55	111	34 98
South Carolina	14,900	205,000	2,526	13 68	23,402	16 09	12,627	4,325	23 61	1,039	21 18
South Dakota	2 800	50,000	187	13 01	12,673	27 23	4,188	1,692	40 32	214	24.25
Tennessee	23,700	364,000	15,989	13 18	38,424	16 30	30,988	11,732	29 13	1,568	20 14
Texas	47,600	763,000	20 182	15 68	182,561	23 95	23,089	9,343	25 31	4,885	26.69
Utah	6,200	110,000	3,344	22 36	12,828	39 12	5,578	2,081	76 25	141	40 84
Vermont	5,300	95,000	1 295	17 03	5,222	24 04	1,620	609	35 69	165	32 36
Virginia	27,300	441,000	15 427	12 49	14,928	15 30	10,908	3,808	34 31	981	19 31
Washington	31 500	641,000	39,527	21 43	65,278	53 53	12,798	5 204	99 28	634	59 61
West Virginia	25 700	444,000	15,074	15 93	18,944	17 22	22,254	8,002	31 58	842	19 45
Wisconsin	38,400	754,000	8,395	17 77	46,261	31 16	15,730	6,338	64 38	1,338	31 54
Wyoming	1,900	36,000	384	18 89	3,522	38 92	900	320	60 70	111	41.61

[a] State distribution estimated. Data for beneficiaries residing in foreign countries are allocated to State in which claim was filed. [b] Total, partial, and part-total unemployment. [c] No plan in operation. No plan in operation under the Social Security Act.

month. Of the 630,000 retired workers receiving benefits, almost a third had aged wives drawing supplementary wife's benefits, at an average payment of $38.80 a month for a couple The 110,000 aged widows of deceased insured workers received an average of $20.20 a month, and the 129,000 younger widows with approximately 202,000 child beneficiaries in their care received monthly amounts ranging from $34.20 per family for a widow with one child beneficiary to $51 for a widow and three or more children. For an additional 113,000 families, in which 214,000 children were the only family members receiving benefits, the average monthly payment was $22.90. Parents' benefits go chiefly to dependent parents of deceased insured women, for if an insured man is survived by a widow or young unmarried child immediately or potentially eligible for monthly benefits, no monthly benefits are payable to his dependent parents.

The total amount paid in benefits during the fiscal year 1945–46 was $337,100,000, including $26,000,000 in lump-sum death payments. Since industrial and commercial employment is not distributed uniformly throughout the United States, approximately three-fifths of the total amount paid in the year went to residents of eight States (California, Illinois, Massachusetts, Michigan, New Jersey, New York, Pennsylvania, and Ohio) which accounted for three-fifths of the workers with 1945 wage credits but less than half the population. Because the program does not cover agriculture or self-employment, relatively few families of rural workers can become entitled to benefits.

Unemployment Insurance. Although unemployment in the fiscal year 1945–46 remained well below even the most conservative advance estimates, there was considerable labor turn-over as war plants shut down and demobilized servicemen and unemployed workers awaited the resumption of peacetime production. In the 12-month period, about 8,500,000 workers filed claims for unemployment benefits under State laws. About two-fifths did not receive benefits, however, because they were reemployed before the end of the waiting period required under all State laws except Maryland's, lacked the necessary wage or employment qualifications for benefits, or were disqualified from benefits by the provisions of State laws The $1,091,000,000 paid in benefits under the State laws in the fiscal year compensated for nearly 58,700,000 man-weeks of unemployment.

Benefits for total unemployment averaged $18 81 a week for the country as a whole, but the averages ranged widely among the States—from $12.31 in North Carolina to $23 60 in Utah, where the benefit scale is adjusted to the cost-of-living index. Only 6 States paid an average of $20 or more, and 14 paid less than $15 a week.

The average duration of benefits for unemployment was 11.2 weeks as compared with 9.9 weeks in the fiscal year 1941–42, when industry was converting to war production. Anticipating postwar unemployment, many States increased the maximum potential duration of benefits under their laws, with the result that, by the end of September 1945, half of the workers covered by these laws were in the 12 States which allowed benefits to be drawn for more than 20 weeks by workers who had sufficient wage credits and were unemployed that long. Maximum weekly benefits also were higher in 1945–46 than in 1941–42; moreover, because of the high wages and regular employment of the war years, many beneficiaries were entitled to the maximum weekly amounts that their State law permitted. The value of these benefits to the workers' families and their communities cannot be overestimated, they facilitated the reopening of industrial plants with many of the workers who had acquired wartime skills in the same or related processes, and helped to prevent mass migration of workers in search of jobs.

PAY ROLLS IN EMPLOYMENTS COVERED BY FEDERAL OLD-AGE AND SURVIVORS INSURANCE AND BY STATE UNEMPLOYMENT INSURANCE PROGRAMS, CONTRIBUTIONS COLLECTED, TRUST FUND ASSETS, AND WORKERS WITH WAGE CREDITS, CALENDAR YEARS 1940, 1943–45

[In millions]

Program and Item	*1940*	*1943*	*1944*	*1945*
Old-age and survivors insurance:				
Pay rolls covered during year	$35,668	$69,747	$73,310	$71,311
Contributions collected during year	$ 637	$ 1,239	$ 1,316	$ 1,285
Trust fund assets at end of year	$ 2,031	$ 4,820	$ 6,005	$ 7,121
Workers with wage credits during year	35 4	47 7	46.3	46.4
Living workers with insured status at beginning of year	22 9	31 2	34 9	38 4
State unemployment insurance				
Pay rolls covered during year	$32,450	$66,106	$69,121	$65,930
Contributions collected during year	$ 854	$ 1,325	$ 1,317	$ 1,162
Trust fund assets at end of year	$ 1,805	$ 4,711	$ 6,015	$ 6,833
Workers with wage credits during year	31 9	44 0	43 0	42 5

In the calendar year 1945, about 42,500,000 workers had wage credits under State laws. Contributions collected under these laws in the fiscal year totaled $1,009,000,000, or 19 percent less than in the preceding fiscal year, partly because fewer workers were in covered employment but mainly because the favorable employment records of the war years had enabled most employers in the 45 States with experience rating to qualify for reductions in their contribution rates. States had an aggregate of $6,732,400,000 available for benefit payments at the end of June

In January–March 1946, 30 States paid more in benefits than they received in contributions and had to draw on their reserves to meet their benefit obligations, and, for the fiscal year as a whole, benefit disbursements exceeded contributions in 16 States. In 1943–44, Federal interest on reserves in State accounts in the unemployment fund was ample to pay benefit payments in all but 4 States.

A Federal program for veterans' readjustment allowances under the GI Bill of Rights is administered by State employment security agencies with Federal funds. In the fiscal year 1945–46 $908,132,000 was paid to the demobilized servicemen who drew unemployment allowances under this program; this figure includes allowances paid in Puerto Rico.

The 1946 amendments to the Social Security Act authorized establishment of a somewhat similar temporary program of reconversion benefits for seamen who were technically Federal employees because they were employed by agents of the War Shipping Administration; no funds were appropriated, however, to start the program. The amendments also authorized States to cover private maritime workers under their unemployment insurance programs. Under another provision, the nine States that had deposited employee contributions toward unemployment insurance in their accounts in the unemployment trust fund are permitted to use the money to pay disability benefits; two States already have such disability insurance programs.

PAYMENTS TO INDIVIDUALS UNDER FEDERAL OLD-AGE AND SURVIVORS INSURANCE, STATE UNEMPLOYMENT INSURANCE LAWS, AND STATE PUBLIC ASSISTANCE PROGRAMS UNDER THE SOCIAL SECURITY ACT, FISCAL YEARS 1937–46, AND BY STATE, FISCAL YEAR 1946 [a]

[In thousands]

Fiscal Year and State	Old-age and Survivors Insurance, Payments Certified: Monthly Benefits [b]	Old-age and Survivors Insurance, Payments Certified: Lump-sum Payments [c]	Unemployment Benefits [d]	Public Assistance Payments under the Social Security Act: Old-age Assistance	Public Assistance Payments under the Social Security Act: Aid to Dependent Children	Public Assistance Payments under the Social Security Act: Aid to the Blind
Fiscal year:						
1937		$ 60	$ 964	$243,229	$ 40,774	$ 8,981
1938		5,856	179,847	360,626	81,062	11,355
1939		14,315	444,235	411,496	103,178	11,906
1940	$ 6,421 [e]	11,188	482,507	452,632	123,136	21,052
1941	57,462	12,715	432,416	505,053	141,591	13,726
1942	102,248	14,242	369,745	568,347	154,401	15,016
1943	139,139	16,595	176,095	616,569	148,747	16,300
1944	173,281	19,156	60,994	679,329	135,156	18,468
1945	224,752	25,887	71,209	701,951	138,084	19,802
1946	311,017	26,044	1,091,369	761,587	172,800	21,409
Alabama	3,772	279	16,108	6,681	1,860	158
Alaska	82	13	401	622	36	(f)
Arizona	926	80	1,567	4,422	736	268
Arkansas	1,604	139	2,912	5,210	1,308	255
California	21,333	1,931	145,582	90,901	7,253	3,722
Colorado	2,054	152	892	20,068	2,410	196
Connecticut	6,909	583	27,294	6,595	2,345	60
Delaware	825	64	1,990	262	239	6
District of Columbia	1,349	166	943	978	553	90
Florida	4,606	305	4,768	15,282	2,539	853
Georgia	3,432	336	8,606	9,628	1,276	359
Hawaii	655	29	55	425	448	20
Idaho	660	27	594	3,744	870	82
Illinois	21,252	2,109	79,244	48,814	14,996	2,098
Indiana	8,500	708	29,595	16,988	2,736	686
Iowa	3,550	242	4,940	19,001	1,236	527
Kansas	2,733	187	10,271	10,337	2,015	413
Kentucky	4,292	288	5,993	6,348	1,348	245
Louisiana	2,918	268	11,266	9,944	4,160	427
Maine	2,556	167	4,699	5,387	1,208	298
Maryland	4,294	406	25,051	3,889	1,487	162
Massachusetts	15,330	1,294	35,566	41,198	7,651	553
Michigan	14,711	1,362	123,310	33,663	11,601	544
Minnesota	4,714	361	9,561	21,132	2,962	439
Mississippi	1,232	112	1,613	5,217	975	408
Missouri	7,076	646	22,281	31,984	5,380	(f)
Montana	927	71	890	4,107	821	142
Nebraska	1,346	123	1,817	8,921	1,555	165
Nevada	250	40	422	889	(f)	(f)
New Hampshire	1,553	108	683	2,394	711	104
New Jersey	13,968	1,332	87,592	8,870	2,490	221
New Mexico	465	27	167	2,320	1,188	83
New York	46,558	3,660	149,893	46,369	23,574	1,509
North Carolina	4,129	329	4,161	5,291	1,997	587
North Dakota	329	38	180	3,539	980	46
Ohio	21,098	1,758	60,353	42,892	5,248	1,015
Oklahoma	2,336	189	9,815	34,793	7,116	838
Oregon	3,497	269	15,854	9,457	1,277	213
Pennsylvania	32,837	2,626	84,645	30,996	20,986	(f)
Rhode Island	3,054	239	11,882	3,082	1,240	42
South Carolina	2,005	169	1,120	4,173	1,093	244
South Dakota	477	32	118	4,015	707	61
Tennessee	3,521	294	10,704	7,340	4,097	370
Texas	7,366	720	13,657	51,004	2,672	1,398
Utah	1,036	63	3,120	5,971	1,710	66
Vermont	853	52	836	1,461	248	62
Virginia	4,301	323	3,916	2,665	1,433	219
Washington	5,701	428	35,888	40,705	4,918	421
West Virginia	4,533	288	8,448	3,641	2,653	184
Wisconsin	7,177	573	9,006	16,407	4,246	494
Wyoming	335	24	200	1,563	212	56

[a] Fiscal years ended June 30. [b] State distribution estimated [c] Fiscal-year totals represent payments under 1935 act and 1939 amendments. State distribution excludes payments under 1935 act. [d] January–June 1940, since monthly benefits not payable before 1940. [e] No plan in operation. [f] No plan in operation under the Social Security Act.

Public Assistance. The close relationship between public assistance and the labor market was as apparent in 1946 as in the early years of the war. When the armed forces were building up to their peaks and critical labor shortages were evident in nearly all parts of the country, the public assistance rolls declined to low levels, and the number of persons who left the rolls exceeded the number of applicants accepted for aid. The drop in the rolls was especially significant, since liberalizations in eligibility requirements in many States would have been expected to result in increases.

The persons who left the rolls because of employment and earnings represented, for the most part, marginal workers—some of them aged and blind persons and children. Employment of these persons would have been possible only in a period of extreme labor stringency, and they were among the first to lose their jobs when employment opportunities began to dwindle. These marginal workers, moreover, were unlikely to have acquired any substantial rights under State unemployment insurance programs or old-age and survivors insurance, either because their jobs were in noncovered employments or because their earnings were intermittent or meager.

Shortly after victory in the Pacific, the number of cases added to the rolls of each public assistance program began to exceed the number of cases closed. In January–March 1946, State public assistance agencies received more than twice as many applications for general assistance and aid to de-

BENEFICIARIES, RECIPIENTS, AND PAYMENTS UNDER SELECTED SOCIAL SECURITY AND RELATED PROGRAMS, FISCAL YEARS 1940, 1942, 1944, AND 1946 [a]
[In thousands; corrected to Nov. 29, 1946]

Program	1940	1942	1944	1946
	Beneficiaries under social insurance and related programs, June			
Retirement, disability, and survivor programs [b]				
Old-age and survivors insurance	95 5	529 9	846 3	1,502 1
Railroad retirement	144 3	156 9	164.1	185 1
Federal employee systems:				
Civil service	62.7	70 0	79.2	99.1
Other contributory [c]	.6	.8	.9	(c)
Noncontributory [c]	32 2	33 5	32 2	(c)
State and local employee systems [c]	152 3	171 0	195.5	(c)
Veterans' pensions and compensation	928.7	939.8	1,150 9	2,920 2
Rhode Island sickness compensation [d]	..	..	8 3	7 4
Workmen's compensation	(e)	(e)	(e)	(e)
Unemployment insurance programs:				
State unemployment insurance [d]	1,268 6	552.7	77 9	1,174.1
Railroad unemployment insurance [f]	31 4	4 7	.4	74 9
Veterans' unemployment allowances [g]	..	..	....	1,781 5
Self-employment allowances to veterans [g]	..	....	....	261 8
	Recipients of public assistance, June			
Public assistance programs [h]				
Old-age assistance	1,969.7	2.253 5	2,087.7	2,108.2
Aid to dependent children:				
Children	835.0	952.0	651.5	799 4
Families	347.4	395 6	260 2	311 3
Aid to the blind	71 6	78 9	73 9	74 0
General assistance	1,354 0	607 0	258 0	278 0
Subsistence payments to farmers	60 0	12 0	..	....
	Payments under social security and related programs, fiscal year ended June			
Total	$2,542,019	$2,525,982	$2,400,781	....
Retirement, disability, and survivor programs [b]	985,816	1,169,080	1,403,415	..
Old-age and survivors insurance	16,852	116,490	192,437	$337,061
Railroad retirement	114,025	126,657	135,215	153,816
Federal employee systems	119,551	124,349	139,893	..
Civil service	65,370 [i]	71,873	82,939	101,671
Other contributory [c]	872	1,065	1,340	(c)
Noncontributory [c]	53,309	51,411	55,614	(c)
State and local employee systems [c]	141,500	157,100	182,000	(c)
Veterans' pensions and compensation	432,888 [i]	435,484 [i]	499,356 [i]	1,259,231
Rhode Island sickness compensation	..	..	4,514	4,679
Workmen's compensation [e]	161,000	209,000	250,000	(e)
Unemployment insurance programs	497,317	378,635	61,541	2,018,458
State unemployment insurance	482,507	369,745	60,994	1,091,062
Railroad unemployment insurance [f]	14,810	8,890	547	20,487
Veterans' unemployment allowances [g]	....	....	....	906,909
Self-employment allowances to veterans [g]	..	..	..	115,960
Public assistance programs [h]	1,058,886	978,267	935,825	1,064,182
Old-age assistance	449,969	568,631	679,329	761,587
Aid to dependent children	123,366	157,405	135,896	173,118
Aid to the blind	21,206	23,764	25,215	28,517
General assistance	444,450	219,499	95,385	100,960
Subsistence payments to farmers	19,895	8,968	..	..

[a] Excludes Federal work programs. [b] Beneficiaries represent persons receiving monthly benefits, exclude persons receiving lump-sum payments only. Payments include lump-sum death payments [c] Data estimated; for 1946, not available [d] Average weekly number [e] Number not available Payments primarily for calendar year; partly estimated, for 1946, not available [f] Average number of persons receiving benefits for unemployment in a 14-day registration period [g] Under Servicemen's Readjustment Act of 1944, effective September 1944 Average weekly number for unemployment and number during month for self-employment. [h] Data through 1942 for continental United States only. [i] Partly estimated.

pendent children as in the first quarter of 1945, and in old-age assistance and aid to the blind the increase was about two-thirds. In June 1946, recipient rolls were at the highest levels on record in 10 States for aid to dependent children and aid to the blind and in 9 for old-age assistance, although, for the country as a whole, none of the programs had reached its prewar peak.

Some States found it impossible to make needed increases in individual payments and add eligible applicants to the rolls. As a result, the range among the States in average payments for June 1946 was wider than it had been a year earlier.

In the country as a whole, one out of every five aged persons in the population in June 1946 was a recipient of old-age assistance. In some industrial States, such as Connecticut, Delaware, New York, and New Jersey, however, the ratio was less than one in ten. The concentration of covered employment in industrial States and in metropolitan areas means that relatively few persons in rural States and areas can qualify for old-age retirement benefits under Federal old-age and survivors insurance, and opportunities for acquiring old-age protection under other insurance programs are meager. It is therefore not surprising that rural areas have relatively more aged recipients of assistance than do urban areas, in terms of population. Before the Social Security Act made Federal funds available to States to share the costs of assistance to needy aged and blind persons and young children deprived of parental support or care, State and local funds for public assistance were concentrated mainly in metropolitan areas, as is the case in some States for general assistance, which is financed without Federal aid.

In June 1946, nearly 2 percent of the children in the United States under age 18 were receiving aid to dependent children, but in 7 States the recipient rates were 1 percent or less and 4 States had rates of 3 percent or more. In many metropolitan counties, the number of widows with young children on the survivor beneficiary rolls of old-age and survivor insurance exceeded the number of

such families receiving aid to dependent children.

In aid to the blind, the 47 States using Federal funds for this program in June 1946 aided about one-third the estimated blind population in those States. Three States aided less than one-tenth, while nine States aided more than half. Three of the 51 jurisdictions (Missouri, Nevada, and Pennsylvania) administer aid to the blind without Federal funds, and Alaska has no separate assistance program for the needy blind. While insurance will gradually replace assistance for many aged persons, as the old-age and survivors insurance program matures and wage earners have a longer period in which to acquire insured status, there is less chance of a change in the relative roles of old-age and survivors insurance and aid to the blind, in the absence of provisions in the insurance program to compensate for disabilities before age 65.

The case load in general assistance, financed by States and localities, increased one-fifth from June 1945 to June 1946, though in some States the increase was as much as one-half and in others the rolls declined. The load was relatively greater in cities than in rural areas; 19 metropolitan areas, with about one-fifth of the total population, had about one-third of the entire case load of the country in June 1946.

In the fiscal year 1945–46, payments for public assistance to needy persons totaled $1,064,000,000 under the Federal-State programs established by the Social Security Act and State and local programs. Old-age assistance accounted for seven-tenths of this total. Federal grants to States for the period amounted to nearly $439,000,000, of which more than three-fourths was for old-age assistance.

In June 1946, States had 2,108,000 recipients of old-age assistance on their rolls; 799,000 children in 311,000 families received aid to dependent children; nearly 74,000 blind persons received aid to the blind; and 278,000 households or individuals received general assistance. The average payment in that month was $31.48 for old-age assistance, with a range from $11.79 in Kentucky to $53.53 in the State of Washington. Average payments, per family, for aid to dependent children ranged from $21.37 in Kentucky to $99 28 in Washington, while the average for the United States was $53.70. Washington also had the highest average for aid to the blind—$59.61—and Kentucky had the lowest—$13.34; the average for all States was $34 05. In general assistance, the Nation-wide average was $32.66 per case, and the State averages ranged from $9.32 in Mississippi to $52.24 in Washington.

An average assistance payment for a State covers, of course, wide ranges in individual payments —from those which represent the maximum permitted by the State law to a few dollars a month needed to supplement a recipient's resources. Some recipients need expensive medical care, some are entirely helpless, and others cannot quite make ends meet. The record shows, however, that some States with limited financial resources give far less than recipients need, as determined by the State's own standards.

The Social Security Act Amendments of 1946 provide for an increase in the Federal share of payments for old-age assistance, aid to dependent children, and aid to the blind for a 15-month period beginning with October 1946. This change will help States make higher payments to recipients to offset, at least in part, the rise in living costs.

EXPENDITURES FOR PUBLIC ASSISTANCE PAYMENTS AND ADMINISTRATION UNDER THE SOCIAL SECURITY ACT, FISCAL YEARS 1942–46 *

Program and fiscal year	Amount	Percentage distribution		
		Federal funds	State funds	Local funds
Old-age assistance:				
1942	$601,978,000	49 2	41 2	9.6
1943	653,209,000	49 1	41 6	9 2
1944	720,305,000	47 6	44 5	7 9
1945	743,984,000	47 3	44 9	7 8
1946	806,349,000	46.2	46.3	7 5
Aid to dependent children:				
1942	167,658,000	41 2	40 9	17.9
1943	162,334,000	40 3	43 2	16 5
1944	148,070,000	38 3	44.9	16 8
1945	151,398,000	36 4	46 3	17 3
1946	188,868,000	33.3	51.4	15.3
Aid to the blind:				
1942	16,521,000	47.3	34 9	17 8
1943	17,984,000	47.6	36 0	16 4
1944	20,622,000	47 5	38.2	14 3
1945	21,729,000	47 4	39 3	13 3
1946	23,500,000	45.5	40.8	13.7

* Excludes Federal administrative expenses. Fiscal years ended June 30.

Children's Bureau Programs. The Nation's continuing fight to reduce infant and maternal mortality is showing good results. The 1945 provisional infant mortality rate of 38 1 per 1,000 live births was a new low, 4.3 percent under 1944 final rate of 39.8. The maternal mortality rate for 1945 apparently will be even lower than the 1944 record of 22 8 per 10,000 live births. The provisional birth rate for 1945, however, was 19.8 per 1,000 population as compared with 20.2 in 1944, showing a continued decline from the peak of 21.5 reached in 1943.

Despite the progress made, there are still in every State needless deaths associated with maternity. In preventing deaths among infants born prematurely there is special opportunity for continued reduction in infant mortality. The American Academy of Pediatrics continued its survey of child-health services throughout the United States in 1946, with the cooperation of the Bureau and the U.S Public Health Service; by the latter part of the year, data were being gathered in 39 States.

In the social service field, the Bureau carried on its efforts to bring improvement in detention care of children and in foster-home care. Long waiting lists of children needing placement attest the need for suitable foster homes. Cutting off in February 1946 of Federal funds for day-care centers for children of wage-earning mothers created a disturbing situation for many communities. The Bureau advised State and local agencies in their efforts to find ways to continue these services The Bureau also shared in planning services for children in other countries who are of special concern to Americans. These include children born out of wedlock to men of our armed forces and to other Americans abroad, servicemen's foreign-born children sent to this country unaccompanied by a relative, and children brought here for placement. Under the President's directive of December 1945 to facilitate admission to this country of eligible persons displaced by the war, with emphasis on children, plans were developed for bringing children to this country for care. The Bureau set up standards and, with State departments of public welfare, designated agencies to give care and service. *The Child*, monthly magazine of the Bureau, devoted its July 1946 issue to Europe's displaced children.

In the field of child labor, the Bureau's research, promotion of good labor standards, and child labor administration shifted from wartime problems to those of postwar adjustment affecting the education and employment of youth. Estimates in April 1946 showed somewhat less than 2½ million boys

and girls 14–17 years of age at work in full-time or part-time jobs. Under the Fair Labor Standards Act, age or employment certificates under State laws in 44 States, the District of Columbia, Hawaii, and Puerto Rico were accepted as proof of age, and in 4 States Federal certificates were issued by the Bureau.

When the Children's Bureau was transferred to the Federal Security Agency, the Bureau's child labor functions remained in the Department of Labor. During the last half of 1946, the Child Labor and Youth Employment Branch of the Division of Labor Standards carried on the administration of the Federal child labor regulations.

Federal grants-in-aid to States through the Children's Bureau during the fiscal year ended June 30, 1946, were as follows:

Maternal and child health services	$ 5,935,000
Services for crippled children	4,059,000
Child-welfare services	1,278,000
Emergency maternity and infant care	38,050,000

These programs were in operation in all 48 States, the District of Columbia, Alaska, Hawaii, and Puerto Rico. Under the emergency maternity and infant care program, care was authorized for 385,000 wives and babies of servicemen during the fiscal year. The Social Security Act Amendments of 1946 increased the annual amounts authorized for programs administered by the Bureau and made the Virgin Islands eligible for grants on January 1, 1947. The amounts were increased from $5,820,000 to $11,000,000 for maternal and child health services, from $3,870,000 to $7,500,000 for services for crippled children, and from $1,510,000 to $3,500,000 for child-welfare services.

State health departments are placing greater emphasis on special training for better care of the newborn, improvement of health services for school-age children, development of mental health programs, consultation service to hospitals, and expansion of nutrition services. Postwar improvement of services for crippled children has begun, as professional personnel have returned from war duty. The number of children on State crippled children's registers at the beginning of 1946 was 404,500, an increase of nearly 23,000 over the preceding year's total. Three more States have initiated services for children with rheumatic fever, bringing to 20 the number providing this type of care.

During the year the Bureau sent staff consultants on child health and welfare to 13 of the other American republics, and received visitors from some 30 countries for training, study, or information. The fourth annual Border Health Conference, in El Paso, Texas, and Ciudad Juarez, Mexico, April 29–May 1, took up problems of maternal and child health. Translations into Spanish of the new editions of the Bureau's handbooks for parents have been made under the auspices of the American International Association for the Protection of Childhood.

As recommended by the National Commission on Children in Wartime at its final meeting in February 1946, a new National Commission on Children and Youth has been formed to give continuing leadership to Nation-wide efforts to extend and improve opportunities for children and youth.

ARTHUR J. ALTMEYER.

SOCIETIES AND ASSOCIATIONS. The following is a list of some of the leading national and international organizations, with a concise report of their activities during 1946. The organizations are listed alphabetically according to the first specific word in each title. Certain classifications have been omitted in this list because they are presented elsewhere in this volume. The reader is, therefore, referred to the following articles as a supplement: for accrediting associations, to the article on UNIVERSITIES AND COLLEGES; for labor organizations, to LABOR CONDITIONS; for religious bodies, to the interdenominational groups below, and to the separate articles on churches; for sports organizations, to articles on various sports and *Amateur Athletic Union*, below. For foundations and trusts, government agencies, learned academies, and institutes, see separate articles. For official international organizations, see PAN AMERICAN ACTIVITIES and UNITED NATIONS, as well as various separate articles.

Actor's Fund of America, founded in 1882 to care for the impoverished, aged, and infirm members of the theatrical profession. Membership, 1946: 2,696. President: Walter Vincent. Secretary, Robert Campbell. Headquarters: 1619 Broadway, New York 19, New York. The Fund, supported by donations, benefit performances, and a limited endowment, spends from $140,000 to $180,000 a year. A home for retired actors is maintained in Englewood, New Jersey.

Adult Education, American Association for, founded in 1926 to serve as a clearinghouse for information, initiate activities, and assist enterprises already in operation, and to aid and advise individuals who, although occupied with some vocation or interest, desire to continue their education. Membership 2,850. President Alain Locke. Director Morse A Cartwright. Headquarters. 525 West 120 Street, New York 27, New York.

Advancement of Colored People, National Association for the, was founded in 1909 to combat the spirit of unfairness which confronted colored people in the United States, safeguard their rights, and secure for them equal opportunity with all other citizens. Membership 600,000. President Arthur B Spingarn. Executive Secretary. Walter White, Headquarters 20 West 40th St., New York 18, New York The Spingarn medal, an award to "pre-eminent pioneers of a people fighting for its rights on the frontier of intolerance and bigotry," was awarded in June, 1946, to Mr. Thurgood Marshall, characterized "For his distinguished service, during 1945, as a lawyer before the Supreme Court of the United States and inferior courts, particularly in the Texas Primary Case which conceivably may have more far reaching influence than any other act in the ending of disfranchisement based upon race or color in the country, also in recognition of the unselfishness and courage which he has shown not only in this but in other cases for the right of Negroes to belong to trade unions, in his attack upon the Jim Crow travel system and unequal educational opportunities, and for basic human rights and justice in the courts."

Advancement of Music, National Bureau for the, founded in 1916 to promote musical interest and activities and to aid those interested in such activities. Membership Anyone contributing $5 or more President Howard Braucher Bureau Director. C. M. Tremaine. Headquarters 315 Fourth Avenue, New York 10, New York. The Bureau cooperates with existing agencies in the field of music and promotes National Music Week (beginning first Sunday in May), now expanded to National and Inter-American Music Week. Has available comprehensive list of publications on many aspects of music including school music, contests and festivals, community music and group instruction in applied music Merged with the National Recreation Association January, 1943.

Advancement of Science, American Association for the, founded in 1848, a democratic and representative organization devoted to the whole field of science Organized in fifteen sections, it has over 29,000 members and 198 associated societies. President Dr James B Conant Administrative Secretary Dr. F R Moulton Headquarters: 1515 Massachusetts Avenue, N W, Washington 5, D C Publications *A.A.A.S. Bulletin, Science, The Scientific Monthly,* technical symposia, and nontechnical scientific books. A meeting was held in St. Louis, Mo., March 27–30, 1946, and a large meeting in Boston, Massachusetts, December 26–31, 1946.

Advancement of Science, British Association for the, founded in York, England, in 1831. President: Sir Henry Dale, Secretary; David N. Lowe. Headquarters: Burlington House, London, W. 1. England. The Association holds Annual Meetings in cities other than London, and meetings of its Division for the Social and International Relations of Science in London, and elsewhere at other times. The Association annually sets aside money for scientific researches. Papers, discussion, and results of research are printed quarterly in *"The Advancement of Science"*

Aeronautic Association, National (NAA), founded in 1905, a non-profit, non-partisan organization representing

the consumer interest in all phases of aviation. Net paid membership: 20,000, with over 200 chapters throughout the United States. President: L. Welch Pogue. Executive Vice President· Lowell H. Swenson. Headquarters: 1025 Connecticut Avenue, N.W., Washington 6, D.C. Outstanding functions, 1946· promotion of airports and airway facilities; encouragement of private flying; sponsorship of the Joint Aviation Users Conferences and the National Aviation Clinic; aviation for public education, model building and flying for youth; development of progressive legislation; fostering of American air supremacy; representing the Federation Aeronautique Internationale in the United States; supervision of aircraft records and performances; awarding of the Robert J. Collier Trophy; United States Wing of the Inter-American Escadrille; publisher of *National Aeronautics, Model Aeronautics, Airport Digest,* and *FYI;* guidance activity for veterans.

Aeronautical Sciences, Institute of the, founded October 15, 1932, to advance the sciences applied to aeronautics through the publication of technical papers, the holding of scientific meetings, and other activities contributing to the progress of the aeronautical profession. President: Arthur E. Raymond. Secretary. Robert R. Dexter Headquarters· 2 East 64th Street, New York 21, New York. Fifteenth Annual Meeting of the Institute is scheduled to take place at the Hotel Astor on January 28, 29, and 30. Mr. Raymond's term as president expires January 30th and officers for 1947 will be announced early in January.

Aid to France, American (formerly American Relief for France), established 1944 as a unified organization comprising societies already engaged in French relief, with representation of international organizations whose programs include aid to the French people. It has Local Units in 300 communities, situated in all States of the Union It sends food, clothing, medical supplies, automotive equipment to France. Its long-term program includes establishment of welfare centers in France, especially in areas devastated during the liberation of France. It solicits gifts in kind as well as money. It is also registration agency for child "adoption" package program. President John J McCloy Chairman of Board William Phillips. Executive Vice President and Treasurer Elliott H. Lee. Vice Presidents. Marian A. Dougherty; André Meyer. Secretary. William A. Roseborough. Headquarters. 39 East 36th Street, New York 16, New York. Foreign Office, 20 rue de la Baume, Paris, under the direction of General Harold F Loomis.

Alcoholic Foundation, The (Headquarters for **Alcoholics Anonymous**) was founded in 1934 for the sole purpose of helping the sick alcoholic recover if he wishes Membership 30,000 members in 983 groups throughout the world. Nine Trustees, working without compensation, maintain the General Headquarters. All except office work is carried on through members on a voluntary basis. Headquarters: P.O. Box 459, Grand Central Annex, New York 17, New York Meetings are held in most of the larger cities and many of the smaller ones, several nights a week. Anyone may obtain the address of the local group in his vicinity by writing to the headquarters of the Foundation.

Allied Youth, Inc., with headquarters in the Allied Youth Building, 1709 M Street, N.W., Washington 6, D.C., is a non-sectarian, non-political movement which functions primarily in the high schools throughout America Its platform is. "We stand for the liberation through education of the individual and society from the handicaps of beverage alcohol." Its speakers address high school student assemblies, and organize Allied Youth Posts to study the alcohol problem and to promote an alcohol-free social and recreational program. Allied Youth's principal concern is to help youth at the point of personal choice, assisting young men and women in getting the scientific facts about alcohol. One of Allied Youth's outstanding 1946 projects was a national conference at Atlantic City October 18–20 to which selected leaders of recognized standing in alcohol education and related fields were invited for the purpose of planning a large-scale program for getting the facts about alcohol vividly before America's youth through the facilities which Allied Youth makes available. In addition to its service in the field Allied Youth issues a great deal of printed material, including *The Allied Youth,* published monthly except in August, the *Alcoholfax Educational Service,* and programs and other material for schools and churches. The Board of Trustees includes prominent educators and civic and religious leaders Complete information available from W. Roy Breg, Executive Secretary, Allied Youth, Inc., Allied Youth Building, 1709 M Street, N W., Washington 6, D.C.

Amateur Athletic Union of the United States (A.A.U.), founded in 1888 to improve and promote amateur sports and the civic interest of the nation, by the education of all classes in the benefits to be derived by participation in athletics. The A.A.U establishes a uniform test of amateur standing and uniform rules governing the sports within its jurisdiction, regulates and awards the athletic championship of the United States, and promotes legislation in the interest of sports facilities. President: Willard N. Greim. Secretary: D. J. Ferris. Headquarters: 233 Broadway, New York 7, New York. For activities and awards during 1946 see the separate articles on the various sports.

Antiquarian Society, American, founded in 1812 with the maintenance of a national library of American history as its chief purpose. The library contains nearly 700,000 titles and is free for the use of all qualified scholars. Membership (honorary): 200. President: Samuel Eliot Morison. Director. C. S. Brigham. Librarian. C. K. Shipton. Headquarters. Worcester 5, Mass.

Anti-Saloon League of America, The, founded in 1895 to promote temperance education and legislation. During 1945 the League concentrated its efforts upon temperance education in the States and upon the increase in the number of political units voting no-license under local option laws. In the area of Federal action it urged the broad use of the war powers conferred upon the President by the several War Powers Act to prevent the waste of materials and manpower during reconversion following World War II. President· Bishop Ralph S. Cushman; General Superintendent: George W. Crabbe. Headquarters: 131 B Street, S.E, Washington 3, D C.

Archaeological Institute of America, founded in 1879 to promote and direct archaeological investigation and research. Membership. 1,200. President: Sterling Dow. General Secretary· Stephen B. Luce. Headquarters: Harvard Divinity School, Andover Hall, Cambridge 38, Mass.

Architects, The American Institute of, founded in 1857 to promote the efficiency of the profession, to advance education in architecture and allied subjects, and to make the profession of increasing service to society. Membership: 6,500. President James R. Edmunds, Jr. Secretary Alexander C. Robinson III. Treasurer: Charles F Cellarius. Executive Director Edward C. Kemper. Headquarters: The Octagon, 1741 New York Avenue, N.W., Washington 6, D.C.

Army and Navy Union, United States of America, was founded in 1886 and incorporated in 1888. The purpose and objectives of the Union and the Ladies Auxiliaries are as follows. to advocate a strong national security that all citizens of the United States can live in freedom without fear, to provide for our comrades and shipmates when sick or in need; to extend a helping hand to the families and dependents of a deceased comrade or shipmate, to assist and foster legislation for a strong security that will be beneficial for all citizens as well as for the betterment of conditions in the Armed Forces and for the veterans, widows, orphans and their dependents, to maintain free employment and welfare service Membership 280,000 National Commander. William A. Klatt National Adjutant Henry W. Gerber. National Headquarters 10 South Tennessee Avenue, Atlantic City, New Jersey The free employment and welfare services are maintained at the Department of New York Headquarters 325 East 38 Street, New York 16, New York During 1946, the sick and wounded in Government hospitals were visited, given Christmas packages and 1,000 radios; 15 Projection Books were presented to bed-ridden patients in various hospitals; the Unknown Soldier's Tomb and other graves were decorated; and the Memorial Day, Army and Navy Day Parades were presented. National Encampment will be held in the latter part of August, 1947 Department of New York Encampment will be held the latter part of July, 1947.

Army Relief Society, founded in 1900, to collect funds and provide relief in case of emergency for dependent widows and orphans of officers and enlisted men of the regular army of the United States. President Mrs Arthur W. Page Treasurer: Mr Walter G. Kimball Headquarters· 350 Fifth Avenue, Room 5815, New York 1, New York. During 1946, Branches of the Society were re-established at every Army post throughout the country. Meetings are held, at the headquarters, the second Wednesday of each month

Arts, The American Federation of, founded in 1909 to develop art and its appreciation. Chapter Membership: 451. Honorary President Hon. Robert Woods Bliss. President Hudson D. Walker. Director: Thomas C. Parker. Headquarters: Barr Building, Washington 6, D.C.

Arts and Letters, National Institute of, founded in 1898 to further the interests of literature and the fine arts. Membership 250. President: Douglas Moore. Secretary: Henry S. Canby. Headquarters: 633 West 155 Street, New York 32, New York. A Gold Medal was awarded in 1946 to Van Wyck Brooks for Essays and Criticism and "The Institute Award for Distinguished Achievement given to an eminent foreign artist, composer or writer living in America" was presented to Ralph Hodgson for poetry Scheduled meetings: Public Ceremonial and Exhibition given jointly with the American Academy of Arts and Letters (founded by 50 members of the National Institute —see ARTS AND LETTERS, ACADEMY OF) in May, 1946, at New York City; Annual Dinner-Meeting, December 18, 1946, in New York.

Asiatic Association, American, founded in 1898 to study relations between Asiatic countries and the United States. Membership: 200. President: R. M. Field. Secretary:

John B. Chevalier. Headquarters: India House, 1 Hanover Square, New York 4, New York. Annual meetings are held the third Thursday in October at India House.

Associated Press, founded in 1900 for the collection of news, photographs, and features. Serves more than 2,500 members and subscribers throughout the world. President. Robert McLean of the *Philadelphia Evening Bulletin.* Secretary: Lloyd Stratton. Headquarters: 50 Rockefeller Plaza, New York 20, New York. Scheduled meeting: April, 1947.

Astronomical Society, American, founded in 1899 to advance astronomy and closely related branches of science. Membership: 600. President: Otto Struve. Secretary: C. M Huffer, Washburn Observatory, University of Wisconsin, Madison 6, Wisconsin Scheduled meetings: December 27 to 30, 1946, Cambridge, Massachusetts: September, 1947, Evanston, Illinois.

Audubon Society, National, organized in 1905 to arouse public appreciation of the value of, and recognition of the need of, conservation of wildlife, soil, plants, and water, and the interdependence of these natural resources. Membership: 80,000 individuals and 200 member societies with membership of 60,000 individuals; also, 1,600 nonmember contributors President John H Baker Chairman of the Board of Directors Ludlow Griscom Headquarters; 1,000 Fifth Avenue, New York 28, New York Activities during 1945 included enrollment of children throughout the United States and Canada in 13,636 Audubon Junior Clubs in schools, camps and youth organizations; spring and summer courses in natural history and conservation conducted at the Audubon Nature Center in Greenwich, Connecticut; summer courses in Natural History and Conservation at Audubon Nature Camp, Medomak, Maine, with 250 students, Audubon Wildlife Screen Tours with ten famous nature lectures in forty principal Midwestern cities, Audubon staff lectures addressing 1,000 audiences reaching 350,000 individuals, protective warden service provided for wildlife on some 3,000,000 acres of land and water in Maine, Connecticut, New York, New Jersey, Pennsylvania, Florida, Louisiana, Texas and California

Automobile Association, American (A.A A), founded in 1902 to provide a nation-wide network of service and protection for car-owning members and to work for the improvement of motoring conditions generally. Membership in A A A clubs Over 1,700,000 President: H J Brunnier, General Manager. Russell E. Singer; Headquarters 17th and Pennsylvania Avenue, N W., Washington 6, D C. During 1946 one of the first reconversion efforts of the organization was to bring up to date its maps, tour books, and other travel literature. A special corps of road reporters was organized to gather first-hand information on road conditions and to inspect hotels, motor courts, and other accommodations along the major highways of the United States, Canada, and Mexico Tremendous increase in travel interest was reflected by circulation of A A A. travel literature, which totaled some 10,000,000 copies, an increase of fifty percent over the prewar record year. In the field of traffic safety the A A A cooperated with the President's Highway Safety Conference and, as a follow-up campaign, launched a "Take It Easy" program which attracted nation-wide interest The organization revitalized programs in the interest of behind-the-wheel driver training for high school students and for greater protection of pedestrians In the international field the A A A sent a full delegation to the meeting of international motor clubs at Paris and led the successful effort to achieve amalgamation of the two big international travel bodies—Association Internationale des Automobile-Clubs Reconnus and Alliance Internationale de Tourisme The organization is taking an active part in activities of the Inter-American Federation of Automobile Clubs, and through a special representative was successful in organizing motor clubs in Central America along the route of the Pan-American Highway, scheduled to be opened in 1948. Its International Travel Division was revived and arrangements already have been completed for the appointment of foreign port agents in major European countries to act in behalf of American motorists traveling abroad After a wartime lapse automobile racing, under the sanction of the A A A. Contest Board, staged a comeback with the heaviest schedule in history. Tentative arrangements are underway for new speed trials on the Bonneville Salt Flats with expectation that the 400-mile an hour mark will be achieved. At the year's end the A.A A was concentrating much of its energies on a drive in support of the projected 40,000-mile Interstate Highway System authorized by Congress in 1944; this system is designed to provide a nationally integrated network of high type highways tailored to the needs of modern traffic

Automobile Manufacturers Association, founded in 1913 for service to the motor industry. Membership. 34. President: George W. Mason. Secretary: Marvin E Coyle. General Manager: George Romney Headquarters: New Center Building, Detroit 2, Michigan.

Bacteriologists, Society of American, founded in 1899 to promote the science of bacteriology and bring together American and other microbiologists for demonstration of methods and discussion of problems and advances. Membership: about 2,700. President: James Craigie, M.D., University of Toronto. President-elect: Thomas Francis Jr., M.D., University of Michigan. Secretary Treasurer: Professor Leland W. Parr. Headquarters: School of Medicine, The George Washington University, 1335 H. Street, N W,, Washington 5, D.C. Annual meetings: 1946, Detroit, Michigan, in May; 1947, Philadelphia, Pennsylvaia, in May, 1948, Minneapolis, Minnesota Publications: *Journal of Bacteriology, Bacteriological Reviews, Monographs of Microbiology, News Letter.*

Bankers Association, American, founded in 1875 to promote the welfare and usefulness of banks, secure uniformity of action on subjects of importance and provide opportunity for discussion thereon, and to provide educational opportunities for bank officers and employees. Membership: 15,613. President: C. W. Balley. Headquarters. 12 East 36 Street, New York 16, New York, 719–15 Street, N.W , Washington 5, D.C., 105 W. Adams Street, Chicago 8, Illinois.

Banking, American Institute of, founded in 1900 to further the education of bankers in the theory and practice of banking and in those principles of law and economics that pertain to the banking business and to establish and maintain a recognized standard of banking education by means of official examinations and the issuance of certificates of graduation. Membership about 70,000. Secretary: Floyd W. Larson Headquarters: 12 East 36 Street, New York 16, New York.

Bar Association, American, founded in 1878 to advance the science of jurisprudence, promote the administration of justice and uniformity of legislation and judicial decision, uphold the honor of the profession, encourage cordial intercourse among members of the Bar, and correlate activities of State Bar Associations. Membership: 38,000 President: Carl Rix Executive Secretary: Olive G. Ricker Headquarters: 1140 North Dearborn Street, Chicago 10, Illinois In 1946 the Ross Essay Prize was awarded to Eugene C. Gearhart, Binghampton, New York. See LAW.

Bible Society, American, founded in 1816 to encourage wider circulation of the Holy Scriptures without note or comment throughout the world Membership: probably over 15,000. President: Daniel Burke, LL.D.; General Secretaries: Dr Eric M North, Mr. Frank H. Mann, Mr. Rome A. Betts, Dr F. W. Cropp, Dr Robert T Taylor Treasurer: Rev. Gilbert Darlington, Headquarters: Park Avenue and 57 Street, New York 22, New York. Universal Bible Sunday will be observed December 14, 1947 The 1947 annual meeting will be held May 8.

Bibliographical Society of America, founded in 1904 to promote bibliographical research and issue publications Membership 1,200. President William A Jackson Permanent Secretary: Nelson W. McCombs, 100 Washington Square, New York 3, N Y Mailing Address. P O. Box 397, Grand Central Annex, New York 17, N Y.

Blind, Inc , American Foundation for the, founded in 1921 to promote those interests of the blind which cannot be advantageously handled by local agencies President William Ziegler, Jr Executive Director Robert B Irwin Headquarters: 15 West 16 Street, New York 11, New York Activities include research, assistance and consultation service to local agencies, special services to individuals, scholarships, a reference and lending library, and manufacture of Talking Books for the blind

B'nai B'rith (Sons of the Covenant), oldest Jewish service organization, founded in 1843 to further the unity of the Jewish people and to serve humanitarian and community causes through a program encompassing youth welfare, education, community and social service, interfaith understanding, defense of Jewish rights, philanthropy, Americanism Membership: 270,000. President: Henry Monsky. Secretary: Maurice Bisgyer. Headquarters: 1003 K Street, N W , Washington 1, D C All of B'nai B'rith's long-time agencies for service—Hillel Foundations, B'nai B'rith Youth Organizations, Anti Defamation League, Americanism Department and Vocational Service Bureau —were re-tooled for postwar service. On behalf of its members abroad who survived the Nazi terror B'nai B'rith instituted an "adopt-a-family-abroad" program, which resulted in material assistance to over 4,000 needy families B'nai B'rith became the first civilian organization to receive special citations from the Navy (awarded by Rear Admiral Forrest P. Sherman) and the Army (awarded by General Dwight D. Eisenhower) for "meritorious contribution" to the war effort. President Truman received a B'nai B'rith delegation at the White House and lauded the Order's war service record Secretary of War Robert P. Patterson praised the work of B'nai B'rith Women. A plaque was presented to Gen. Omar N. Bradley, pledging continuation of the service program for veterans The annual meeting of the national executive committee approved the establishment of a membership department, and subsequently also, a national veterans' advisory committee was created. All B'nai B'rith districts—seven in number—comprising the United States and Canada, held their first postwar conventions in the summer of 1946.

Booksellers Association, American, founded in 1900 as a trade organization of the retail booksellers of the United States. Its purposes are: to establish and maintain favorable trade conditions; to eliminate unfair competition and price cutting; to work for sound publisher-bookseller relations; to maintain a careful watch on legislation affecting the booksellers' interests, to sponsor promotional campaigns to increase the sale of books; to simplify the daily operational problems of booksellers by providing valuable time and labor-saving services to members. President: George A. Hecht First Vice President· Otto Grauer Second Vice President Lovick Pierce Third Vice President· Robert Campbell Secretary: Henriette Walter Treasurer· Carol Fleming. Headquarters: 35 East 20th Street, New York 3, New York.

Botanical Society of America, Inc., established in 1906 as a clearinghouse for the botanists of America. It supports projects of general interest to botanists, provides an opportunity for the presentation and publication of research studies, and accepts and administers funds for certain purposes. The Society held its annual meeting in conjunction with the A.A A.S. at Boston, Massachusetts, December 26–31, 1946 The official publication is *The American Journal of Botany.* Membership: 1,400. President: Neil E. Stevens Secretary John S. Karling, Department of Botany, Columbia University, New York 27, New York.

Boys' Clubs of America, Inc., a national organization of Boys' Clubs for the development of boys physically, in vocational skills, and character Membership 260 member organizations with over 250,000 boy members. Chairman of Board· Herbert Hoover. President William Edwin Hall Executive Director David W. Armstong. Headquarters 381 Fourth Avenue, New York 16, New York. Boys' Clubs of America's plans include strengthening of local Clubs, training courses for present and prospective workers, and expansion of the movement to additional communities and areas in industrial cities.

Boy Scouts of America, founded in 1910 to promote the ability of boys to do things for themselves and others, to train them in Scoutcraft, and to teach them patriotism, courage, self-reliance, and kindred virtues Membership (October 31, 1946) 1,961,146 President: Amory Houghton Chief Scout Executive Elbert K Fretwell. Chief Scout James E. West Headquarters 2 Park Avenue, New York 16, New York The theme for 1946, "Scouts of the World, Building Together"; and emphasized help to Scouts in the war-torn countries Through the World Friendship Fund, to which Scouts voluntarily contributed, books, badges, and equipment were sent abroad Through the "Shirts Off Our Backs Campaign" Scouts sent uniforms and equipment overseas. Thousands of Scouts earned the General MacArthur Medal for gardening and food projects. New Scout Councils were established in Alaska and Guam. Philmont Scout Ranch provided adventure to Scout Troops visiting from all parts of the United States Pilgrimages to historical shrines were featured by many Troops. In the Fall a big Scout Round-up brought Scouting to an increasing number of boys. A World Jamboree is scheduled for 1947 in France.

Broadcasters, National Association of, founded in 1922 to foster and promote the development of the art of radio broadcasting; to protect its members in every lawful and proper manner from injustices and unjust exactions; to foster, encourage and promote laws, rules, regulations, customs and practices which will be for the best interest of the public and the radio industry Membership 870. President· Justin Miller Executive Vice President. A. D. Willard, Jr Secretary Treasurer C E Arney, Jr Headquarters· 1760 N Street, N W , Washington 6, D C

Business and Professional Women's Clubs, Inc., The National Federation of, founded in 1919 to bring about the spirit of cooperation among business and professional women of the United States and to extend their opportunities and their sense of responsibility for social and economic conditions. Membership over 102,000 President: Sally Butler Executive Secretary: Olive H. Huston Headquarters: 1819 Broadway, New York 23, New York. The Federation's program for the year beginning July, 1946, with its goals, Jobs, Justice, Peace, is a program of action for women who work. It is focused on women's responsibilities in politics; in economic development for jobs, in employer-employee relations; and toward a world of justice and order.

Camp Fire Girls, Inc., oldest national organization in America serving girls between the ages of seven and eighteen, has as its primary purpose "to perpetuate the spiritual ideals of the home" and "to stimulate and aid in the formation of habits making for health and character. Wealthy and underprivileged children alike, over 360,000, regardless of race, color or creed, enjoy its leisure-time program The organization received its charter in the Nation's Capital in 1912, and since that time has pioneered in the development of character and health-building programs Through its Seven Crafts—Home Craft, Outdoors Craft, Creative Arts Craft, Frontiers Craft, Sports and Games Craft, Business Craft and Frontiers Craft—girls "learn by doing." During 1946, Camp Fire Girls special citizenship project, "At Home in the World," promoted world friendship The girls exchanged correspondence with thousands of "pen pals" in all quarters of the globe, and also sent them scrapbooks containing pictures of themselves as well as activity shots describing American ways and customs. In line with this feeling of world neighborliness, Camp Fire Girls have aided children of liberated countries in many ways, by sending thousands of boxes of food, clothing and toys, thus rebuilding faith in human nature and establishing strong bonds of friendship. Camp Fire was one of the seventeen youth-serving agencies participating in YOUTH UNITED—FOR FAMINE RELIEF, (sponsored by the National Social Welfare Assembly). Members pledged themselves to food conservation in order to lessen the toll of starvation abroad Governing themselves by these Laws· Worship God, Seek Beauty, Give Service, Pursue Knowledge, Be Trustworthy, Hold on to Health, Glorify Work, Be Happy, Camp Fire Girls learn early in life that the third law is an important part of the new frontier, human relations, and it will aid them in becoming better citizens of their own country and of the world. President, Dr Bernice Baxter. National Director Miss Martha F. Allen. Headquarters: 88 Lexington Avenue, New York 16, New York.

Cancer Society, Inc., American (before 1944, The American Society for the Control of Cancer) was founded in 1913 to control cancer through a program of education, service, and research There are divisional geographic organizations in all forty-eight states Executive Vice-President J. Douglass Poteat Medical and Scientific Director: Ashley W. Oughterson, M D The Society is supported by voluntary contributions made during April of each year and, in addition, by gifts, bequests and trusts

Canners Association, National, founded in 1907, to improve the quality of canned foods through promotion of research in the technology of canning, and thus encourage the public acceptance of canned foods Membership· over 1,000 President· Fred A Stare First Vice-President. Emil Rutz Second Vice-President: Alfred W. Eames Secretary Carlos Campbell Treasurer Frank E. Gorrell Headquarters 1739 H Street, N W , Washington 6, D C The Association received, on January 19, 1946, the U S Navy Certificate of Achievement for meritorious contribution to the war effort and commendation from Army Quartermaster Corps for work with the Army during the war, and, September 21, 1946, received the Aluminum Award from the U S Treasury Department for assistance in sales of war bonds The Annual Convention will be held January 19–24, 1947, at Atlantic City, New Jersey.

Care of European Children, Inc , United States Committee for the, organized 1940 to provide haven and care in America for the babies and children of the bombed areas of the British Isles and Europe. In 1946 it became sole American agency sponsoring war-orphaned children of Europe coming to America under new Government directive reviving quota immigration It provides trans-Atlantic transportation, rehabilitation and clothing for immigrant war orphans and places them in American foster homes It is a voluntary organization formerly an active agency of the National War Fund, but now depending on its own solicitation for the monies necessary for its work. Honorary President Mrs Franklin D Roosevelt. President Marshall Field, Acting Director Miss M Ingeborg Olsen Secretary Miss Agnes King Inglis Acting Treasurer· Maxwell Hahn Committee Headquarters 215 Fourth Avenue, New York 3, New York Fund Campaign Headquarters 140 Cedar Street, New York 6, New York

Central Location Index, Inc. was founded on May 27, 1944, to assist individuals in the Western Hemisphere in locating their displaced relatives (Allied Nationals) abroad; and to assist such displaced persons abroad in locating their relatives and friends in the Western Hemisphere This work is done through the following ten member agencies of the Index· The American Christian Committee for Refugees, Inc ; American Friends Service Committee; The American Jewish Joint Distribution Committee, Inc. (This is the only member agency that does not accept application for location service); Hebrew Sheltering and Immigrant Aid Society; International Migration Service; United Service for New Americans; The Unitarian Service Committee, International Rescue and Relief Committee; Canadian Location Service, and American Federation of International Institutes. President Moses A. Leavitt. Vice-President: Ruth Larned. Treasurer: Isaac L. Asofsky. Secretary: Mrs. Kathleen Hanstein. Executive Director Carolin A Flexner. Headquarters· 165 West 46th Street, New York 19, New York.

Chamber of Commerce, International, founded in 1920 to provide business men and organizations with a continuing mechanism for interchange of information, joint study, consultation and periodical conference; an organization for leadership in the field of international economic policy. Its activities, curtailed during the war, again are being expanded to refocus business viewpoints and enable the Chamber to offer full consultative assistance to the Economic and Social Council of the United Nations Or-

ganization and related agencies, in the building of a solid economic base for peace. Membership: National Committees in 31 countries; affiliated organizations in 18. President: Winthrop W. Aldrich of the United States. Chairman of the U S. Associates, which is the reorganized group that has replaced the old American Section Philip D Reed Executive Director Arvid L. Frank Headquarters of the I C C 38 Cours Albert Premier, Paris 8eme, France Main office of the United States Associates 590 Madison Avenue, New York 22, New York Washington office, 1615 H Street, N W, Washington 6, D C

Chamber of Commerce of the United States, established in 1912, primarily as a vehicle for the expression of national business opinion on important economic questions Membership 2,407 chambers of commerce and trade associations, 10 299 individual business men, and 6,450 firms and corporations President William K Jackson. General Manager Ralph Bradford Headquarters· 1615 H Street, N W, Washington 6, D C The Chamber is centering its attention particularly upon postwar economics Chamber spokesmen appeared before congressional committees to present a practical business viewpoint on pending legislation Twelve service departments are maintained covering the main divisions of business activity Publications include the *Nation's Business*, a monthly, *Business Action*, weekly, special legislative bulletins, and committee reports Several special committees, besides the regular departmental committees, were engaged during the year in studies of important problems

Chamber of Commerce, United States Junior, an affiliated group of young men's organizations devoted to leadership training, civic service, and development of active citizenship Membership· 120,000, with 1,250 local organizations. Age limits twenty one through thirty-five Organization founded 1920 and now found in thirty-one countries, every state and territory of the United States, Canada, all Central America, most of South America, British Dominions, England, and many other countries United States Headquarters LaSalle Hotel, Chicago 2, Illinois President Selden Waldo Executive Vice President Rex McMorris Headquarters to move in 1947 to Tulsa, Oklahoma Principal activities Aviation projects, Youth Welfare, Sports Promotion; Safety Program to reduce traffic accidents Community Face Lifting to beautify communities; Public Health Program to cooperate with existing health agencies to combat venereal disease, tuberculosis and other diseases; Fire Prevention Program designed to reduce America's fire loss, a Governmental Affairs Committee presenting a program to stimulate thought and active citizenship by young men in local, state, and national affairs; an International Relations Activity aimed at world-wide friendship and understanding and eventual world federation Principal contribution by Jaycees is Leadership Training and "Young Men Learning Civic Consciousness and Responsibility Through Constructive Action" National magazine *Future* The 1947 Convention will be held in Long Beach, California, June 9 through 13

Chemical Society, American, founded in 1876 to advance chemistry, chemical research and knowledge, and the qualifications and usefulness of chemists, it was incorporated under Act of Congress, 1938 Membership· 49,000 President W A Noyes, Jr Secretary· Alden H Emery Headquarters 1155 Sixteenth Street, N W, Washington 6, D C The American Chemical Society Award in Pure Chemistry sponsored by Alpha Chi Sigma fraternity) to C C Price, The Borden Award in the Chemistry of Milk to I A Gould, The Eli Lilly and Company Award in Biological Chemistry to John D Ferry, The Paul-Lewis Laboratories Award in Enzyme Chemistry to D E Green; The Priestly Medal to Roger Adams, the Women's Award in Chemistry to Icie Macy Hoobler Two national meetings Four new local sections chartered.

Child Labor Committee, National, founded in 1904 to promote legislation dealing with child labor and related subjects; conduct investigations; advise on administration; and maintain an information service Membership· about 18,000 General Secretary Gertrude Folks Zimand. Headquarters· 419 Fourth Avenue, New York 16, New York Activities in 1946 included promotion of higher standards in state child labor and compulsory education laws to keep children in school up to the age of sixteen; field assistance to State groups working for improved laws, support of Federal aid to education and other measures to provide more and better education, publication of field study of part-time school and work programs under school supervision; participation in hearings and conferences on Federal bills affecting child labor and related subjects; and in conferences called by the National Commission on Children and Youth, sponsored by the Children's Bureau, and other national and state agencies to consider educational and employment problems of youth; unregulated employment of young children in agriculture, etc ; a public information service; publication of a monthly bulletin, pamphlets, leaflets magazine articles, etc.

Child Welfare League of America, Inc, organized in 1920 and incorporated in 1928, to develop standards of service, for child protection and care, in children's agencies, institutions, day nurseries, and in community programs Membership: 200, plus 20 provisionals. President· Leonard W Mayo Secretary: Ralph Barrow Treasurer. Frank R Pentlarge Headquarters· 130 East 22nd Street, New York 10, New York During 1946, regional conferences were resumed in the New England, Ohio valley, midwestern, and southern regions, and findings of the tri-professional conference, held in 1945, were published The annual meeting will be held at the National Conference of Social Work, San Francisco, California, in April 1947

China Society of America, founded in 1913 The Society operates a cultural program which is designed to promote knowledge and understanding between the peoples of China and the United States It distributes information on China to schools and clubs, and publishes *China* Magazine. It entertains and offers friendly attention to Chinese visitors to this country Membership 500 President· Clark H. Minor. Headquarters: 570 Lexington Avenue, New York 22, New York.

Christian Endeavor, International Society of, formed in 1885 to further the training of young people in the Christian life, among societies and unions in about 50 evangelical denominations in the United States and Canada Membership approximately 2,000,000 President Dr. Daniel A Poling Executive Secretary Carroll M Wright. Headquarters 1201 East Broad Street, Columbus, Ohio

Christians and Jews, The National Conference of, founded in 1928 to promote justice, amity, understanding, and cooperation among Protestants, Catholics, and Jews in the United States. Membership, 40,000 Co Chairmen· Arthur H Compton Carlton J. H Hayes, Roger W Straus President; Everett R Clinchy National Headquarters 381 Fourth Avenue, New York 16, N Y The Conference sponsors a program of education in churches, schools military training centers, and all types of community organizations. It sponsors Religious News Service, an objective news gathering and dispensing agency which provides news releases and feature materials for newspapers and journals It has 60 regional and city offices and 400 Round Tables in various population centers

Churches, The World Council of, established as a provisional committee after the world conferences at Oxford and Edinburgh in 1937 to unite the churches of the world on the federal principle for cooperative service and the promotion of Christian unity Membership 94 denominations in 34 countries Joint Chairmen Dr Marc Boegner, The Archbishop of Canterbury, Archbishop Erling Eidem, Dr John R Mott, Archbishop S Germanos General Secretary Dr W A Visser 't Hooft, Geneva; Associate General Secretary Dr Henry Smith Leiper, New York Assistant General Secretary Rev Oliver S Tomkins, London Headquarters· 17 Route de Malagnou, Geneva, Switzerland, 297 Fourth Avenue, New York 10, New York; 21 Bloomsbury Street, London, W. C 1, England The American Section meets in New York, New York, on the first Tuesday in December A Department of Reconstruction and Inter-Church Aid for the churches of Europe has been set up in Geneva A Commission on International Affairs also has been established with offices in London and New York

Citizens National Committee, Inc. (formerly Citizens Emergency Committee on Nondefense Expenditures, Inc), organized in July, 1941, to keep the public informed with respect to legislative proposals and administrative procedures, to assist Congress and other public officials in their effort to advance the economic welfare of the country, and to coordinate the public demand for efficient and adequate but prudent government Chairman T Jefferson Coolidge Executive Director Kenneth L Pray Headquarters· 2844 Connecticut Ave N W, Washington 9, D C

City Managers' Association, The International, founded in 1914 to aid in the improvement of local government administration and to increase the proficiency of city managers Membership 1,000. President· V. R. Smitham. Headquarters· 1313 East 60 Street Chicago 37, Illinois. Recent publications include *The Municipal Year Book 1946, Governmental Data for Small Council-Manager Cities, Planning for Postwar Municipal Services,* and *Monthly Administrative Reports for Cities.* Also publishes *Public Management,* a monthly journal, issues the "Municipal Management Series" consisting of eight practical manuals; and conducts in service training courses and a management information service

Civil Engineers, American Society of, founded in November, 1852, for the advancement of the sciences of engineering and architecture in their several branches, the professional improvement of its members, the encouragement of intercourse between men of practical science, and the establishment of a central point of reference and union for its members" Membership· 22 000 President Wesley W Horner Vice Presidents· Ernest E. Howard, Arthur W Harrington, Gail A Hathaway, J. T L McNew Executive Secretary· William N. Carey. Directors: W. D. Shannon, Frank C Tolles, S C Hollister, R J Tipton, W. M Wilson, R W. Gamble, R W Crum, Howard T. Critchlow, Oscar H. Koch, Thorndike Saville, Charles W.

Bryan, Jr., John H. Gardiner, H. F. Thomson, Shortridge Hardesty, Irving V. A. Huie, Albert Haertlein, William R. Glidden, William M. Piatt, and Frederick W. Panhorst. Headquarters: Engineering Societies Building, 33 West 39th Street, New York 18, New York. Awards during 1946: Norman Medal, Merrill Bernard; J. James R. Croes Medal, George H. Hickox; Thomas Fitch Rowland Prize, Donald N. Becker; James Laurie Prize, Ole Singstad; Rudolph Herring Medal, Langdon Pearse; Karl Emil Hilgard Prize, L. Standish Hall; J. C. Stevens Award, Thomas R. Camp; Alfred Noble Prize, August L. Ahlf; Construction Engineering Prize, C. G. Cappel; Washington Award, Vannevar Bush. Honorary Memberships: Boris A Bakhmeteff, Charles F. Kettering, and Charles H. Purcell. The outstanding accomplishments of the Society during 1946: National Engineers Committee Report on Industrial Disarmament of Japan; Survey of Economic Status of the Engineer; numerous Salary Surveys; formation of an Air Transport Division; and active participation in the President's Highway Safety Conference. During 1947, meetings will be held in: New York, New York, January 15–18; Phoenix, Arizona, April 23–26; Duluth, Minnesota, July 15–18; and New Orleans, Louisiana, October 15–18.

Civil Liberties Union, American, founded in 1920 to maintain the Bill of Rights for everybody, without exception. Membership: 7,000. Chairman of the National Committee: Prof. Edward A. Ross. Chairman of the Board of Directors: Rev. John Haynes Holmes. Director. Roger N. Baldwin. Headquarters: 170 Fifth Avenue, New York 10, New York. The Union continued during 1946 its intervention in court cases involving civil rights in administrative practices and rulings. Publications included the yearly report, *From War to Peace*, the *Civil Liberties Quarterly*, *Race Practices of National Associations*, *The Case Against Legal Restraints on Racial Libels and Anonymous Publications*, and other pamphlets of current interest in civil liberties.

Civil Service League, National, founded in 1881 to improve and extend the merit system in the public service. Membership: 3,000 President: Nicholas Kelley. Executive Secretary: H Eliot Kaplan. Headquarters 67 West 44th Street, New York 18, New York. In 1946 the League continued its fight against political interference with appointments in public agencies, urged a return to normal peacetime methods of public personnel management and controls, and elimination of unneeded war-created Federal positions. Its Committee on Public Employer-Employee Relations, composed of prominent representative public administrators, educators, labor leaders and industrialists, after long intensive study, issued a report which received nation-wide public approval. The report has had broad circulation It surveys administration of merit system laws, practices and procedures, and gives advisory services with respect to problems of administration, interpretation, and enforcement of merit system laws to public personnel agencies and administrative officials.

Civitan International, nonprofit association of individual Civitan Clubs, now in its twenty-seventh year, whose purpose is best explained by the motto. "Builders of Good Citizenship" It extends from Canada throughout the United States and to Mexico Objectives are (1) Building of good citizenship and promotion of international good will; (2) loyal support of our governments in peace and in war; (3) curbing of crime; (4) public safety and accident prevention (5) fostering of all procedures designed to eliminate communicable diseases and improve the public health, (6) assistance to youth in all ways calculated to reduce juvenile delinquency and to inculcate in them practical incentives to be good citizens; (7) rehabilitation of returning World War II veterans. President J Edward Bailey, American Building, Richmond, Virginia President Elect: H. S. Strawn, 138 West 4 Street, Charlotte, North Carolina. Immediate Past President: LeRoy D. Sauer, 42 Main Street, Dayton, Ohio Vice Presidents: Oby T. Brewer, P. O Box 1663, Atlanta, Georgia, and Eugene J Bryan, Hamilton National Bank Building, Chattanooga, Tennessee; Secretary: Rudolph T. Hubbard, 1525–27 Comer Building, Birmingham, Alabama. Treasurer Marcus Robbins, 119 College Street, New Haven, Connecticut. Judge Advocate: W C. Warren, % Courthouse, Tuscaloosa, Alabama. Sergeant-At-Arms: Bruce Cunningham, Jr., 1915 Wood, Dallas, Texas. Chaplain: Norman L. Brown, 3266 Ingledale Terrace, Los Angeles, California. Official publication: *The Civitan*, published monthly except in July, Charles I. Reynolds, Editor and *Civitan International*. Headquarters: 1525–27 Comer Building, Birmingham 8, Alabama.

Common Council for American Unity, founded in 1919 to continue work begun by the United States Committee on Public Information. It became an independent organization in 1921, and its name was changed from Foreign Language Information Service to Common Council for American Unity in 1940. The purpose of the Council is to help create unity and mutual understanding among the American people; to overcome intolerance and discrimination because of foreign birth or descent, race, or nationality; and to help the foreign-born and their children to solve their special problems of adjustment. Executive Director: Read Lewis. Headquarters: 20 West 40th Street, New York 18, New York. Publication: *Common Ground*, a quarterly magazine. The Council maintains a weekly education service in nineteen languages to the foreign language press in the United States, and radio stations broadcasting foreign language programs; advises individual immigrants; supplies local agencies with latest information on immigration, naturalization and intercultural problems, follows daily developments in Congress in this field, and takes constructive stands on specific issues of discrimination and fair play; works with government agencies interested in foreign origin groups; publishes magazine dealing with intercultural and interracial problems; serves as center of information and advice about nationality and racial groups and programs to advance better understanding; maintains American Common, an intercultural center; sponsors One World Award.

Composers, Authors and Publishers, American Society of, (ASCAP), was founded in 1914 as a voluntary, nonprofit association of composers and authors of musical works and their publishers. Its chief function is the enforcement of that particular right inherent in musical copyright, which secures to the copyright owner exclusive control of public performance for profit The Society is a member of the Confederation Internationale des Societies d'Auteurs et Compositeurs. Membership over 2,000, President: Deems Taylor. Vice Presidents: Gustave Schirmer and Oscar Hammerstein II Secretary George W Meyer Treasurer J. J. Bregman. Assistant Secretary: Donald Grey. Assistant Treasurer; Ray Henderson. General Manager John G. Paine General Counsel Schwartz & Frohlich Board of Directors. Stanley Adams, Fred E. Ahlert, Louis Bernstein, Saul Bornstein, J. J Bregman, Gene Buck, Frank H. Connor, Paul Cunningham, Max Dreyfus, Donald Gray, Oscar Hammerstein II, Otto A. Harbach, Ray Henderson, John Tasker Howard, A. Walter Kramer, George W. Meyer, Jack Mills, John O'Connor, J J Robbins, Richard Rodgers, Lester Santly, Gustave Schirmer, Herman Starr, and Deems Taylor. Headquarters 30 Rockefeller Plaza, New York 20, New York Between October 21 and 25, 1946, the Society was host to the Confédération Internationale des Sociétés d'Auteurs et Compositeurs at the Library of Congress, Washington, D C.

Composers, Inc., The League of, founded in 1923 to further the works by living composers of all nationalities, as well as to help composers by commissions for new works and general promotion of their compositions Executive Chairman Mrs Arthur M Reis Headquarters: 130 West 56th Street, New York 19, New York The League publishes a quarterly magazine, *Modern Music*, the only critical magazine in this country devoted to contemporary music The League of Composers season includes concerts, opera and broadcasts, and commissions new works for other organizations The League has laid particular emphasis on introducing young modern composers to a New York public, having commissioned seventy American composers during the past years. A group of young composers this season were elected to a Program Committee and will be in charge of the New York concerts. A work commissioned by the League for orchestra and voice has been written by Lucas Foss and will receive its first performance by Serge Koussentsky with Ellabelle Davis, soloist, in 1947.

Consumer-Retailer Council, Inc, National, founded in 1937 to enable consumers and retailers to work out together their mutual problems Members American Association of University Women, American Home Economics Association; National Board of the Young Women's Christian Associations; American Retail Federation; National Association of Food Chains; National Retail Dry Goods Association; National Retail Furniture Association; Retail Credit Institute of America. Associate members: National Better Business Bureau, Inc , Illinois Federation of Retail Associations; Pennsylvania Retailers' Association, Inc.; National Association of Retail Secretaries Chairman Theodore B Griffith Managing Director: Roger Wolcott. Headquarters: 8 West 40th Street, New York 18, New York. New publications issued during 1946 include *Why We Need To Work Together; A Primer on Consumer-Retailer Cooperation; Stretching Your Fruit and Vegetable Dollar; Building Sound Consumer-Business Relations; The Ninth Annual Report; Consumer-Retailer Goals*. The Council now has twenty-two publications available for general distribution, including its monthly bulletin, the *NCRC News* The number of copies of Council publications distributed to teachers, consumer groups, and retailers increased forty-seven percent, compared with the previous year Council committees which have important projects under way include the Teacher-Retailer Cooperation Committee; Committee on Label Outlines; Committee on Quality Floors; Committee on College Research; Committee on Informative Advertising.

Consumers League, National, founded in 1899 to awaken consumer responsibility for conditions under which goods are made and distributed, and through investigation, education, and legislation to promote fair labor standards;

this includes State and Federal minimum wage laws, child labor legislation, social security measures, limitation of hours of work for women, proper enforcement of labor laws. Membership: 15,000, including State and National Leagues. President: Alice Hamilton, M.D ; Chairman of the Board Everett Moore Baker. Headquarters. 348 Engineers Bldg., Cleveland 14, Ohio.

Consumers' Research, Inc., founded as the Consumers' Club in 1927 and incorporated in 1929 to provide unbiased information and counsel on goods bought by the ultimate consumer. Number of subscribers: 50,000. President and Technical Director. F. J. Schlink. Secretary: Clark C. Willever. Headquarters: Washington, New Jersey. The monthly issues of *Consumers' Research Bulletin* (and an annual cumulative issue of about 200 pages) present the findings of CR's tests on washing machines, refrigerators, vacuum cleaners, and many other new electrical appliances, rating them by brand name as *Recommended, Intermediate,* or *Not Recommended* on the basis of comparative performance. In addition, there are numerous discussions of the outstanding features of the new automobiles, of important matters connected with the design and equipment of the home, as well as analyses of a wide range of household cleaning preparations and detergents. Monthly features are a "Consumers' Observation Post" and ratings of motion pictures and phonograph records

Consumers Union of U. S., Inc., founded in 1936, is a nonprofit membership organization which tests and reports on a wide variety of products and services to its more than 100,000 members, through its monthly publication, *Consumer Reports* An annual *Buying Guide* summarizes the year's reports in handbook form and carries many additional ratings and much buying data Economic information of concern to consumers is presented through a weekly publication, *Bread and Butter,* which covers news of interest in legislation, government and other activities Consumers Union tests and reports on new consumer durable goods such as radios, automobiles, refrigerators, washing machines, vacuum cleaners, pressure cookers, as well as on foods, textiles, clothing, drugs, cosmetics, etc In *Consumer Reports* there is included much additional information on health and medical care, nutrition, insurance, taxes, etc President Colston E Warne Secretary Harold Aaron Director Arthur Kallet Editor Madeline Ross. Editorial offices and technical laboratories, 17 Union Square West, New York 3, New York.

Cooperative League of the USA, The, founded in 1916 as a national educational federation of the consumer cooperative movement, was reorganized in 1946 on its thirtieth anniversary, and now serves as the national co-ordinating federation of all types of consumer cooperatives.

The Cooperative League in its new capacity will serve as the promotion agency, publishing body, educational as well as research organization, and representative agency for commodity cooperatives (handling foodstuffs, petroleum products, farm supplies, etc), cooperative housing associations, medical and hospital cooperatives, credit unions, cooperative insurance associations and banking organizations, burial associations, camp and recreation organizations, student cooperatives and other organizations in the consumer cooperative field

The Cooperative League maintains offices at 343 South Dearborn Street, Chicago 4, at 726 Jackson Place, N W., Washington 6, D.C , and 167 West 12th Street, New York 11, New York President Murray D. Lincoln, General Secretary E R Bowen

Membership of consumer and purchasing cooperatives in the United States is estimated at 3,000,000 American families, with a business of more than $1,000,000,000 a year, serving the fields mentioned above.

Cooperatives Inc., National, was founded in 1934 as the national federation of consumer purchasing cooperatives in the field of commodities, distribution, and production. There are twenty-two affiliated regional cooperative organizations in the United States and Canada, with 4 030 local cooperatives operating 4,746 retail outlets, and a total number of patron-members at the close of 1945 totalling 1,336,714 President. A J Hayes. Vice-President J L. Nolan Secretary-Treasurer Howard A. Cowden General Manager T A Tenhune Headquarters: 343 South Dearborn Street, Chicago 4, Illinois National Cooperatives serves as a purchasing, merchandising and production organization for its constituent members. At the close of 1946 the Organization took over the education and promotion operations for its constituent members, previously carried on by the Cooperative League of the USA. The consumer cooperative associations affiliated with National were operating 158 mills, factories and oil refineries, producing goods for distribution to its wholesale and retail cooperative associations.

Cotton Manufacturers, National Association of, founded in 1854 for service to cotton mills and rayon weaving mills in the northeastern section of the United States Membership: about 450. President: Russell T. Fisher. Headquarters 80 Federal Street, Boston 10, Massachusetts. Student Honor Medals awarded in various textile schools annually.

Credit Bureaus of America, Inc., Associated, founded in 1906, as a trade association dedicated to the promotion of sound credit principles. It has as its major objective the serving of America's retail credit granters, by enabling them to extend credit wisely and collect outstanding accounts promptly. Membership. 2,073. President: Arthur F. Henning. Vice President Fred S. Krieger. Executive Vice-President. Harold A. Wallace. Chairman of the Collection Service Division: Earle B. Dows. Vice-Chairman of the Collection Service Division Harry E. Boyd. Headquarters 1218 Olive Street, St Louis 3, Missouri During 1946, developed sound credit and collection procedure on an international basis through close cooperation with National Retail Credit Association The National Convention will be held at the Hotel Jefferson, St. Louis, Missouri, June 16–19, 1947.

Credit Union National Association, Inc., founded 1934 to organize and service the credit unions in the United States and Canada. Membership: 54 Leagues serving 4,000,000 members. President. R A. West Managing Director: Thomas W. Doig. Headquarters. 1342 East Washington Avenue, Madison 1, Wisconsin. Canadian credit unions were accepted to membership in 1940, and the Leagues include eight in Canada; also League in Jamaica, British West Indies. The twelfth annual meeting will be held in May, 1947.

Dairy Council, National, founded in 1918, as a nonprofit organization devoted to nutritional research and to education in the use of dairy products, in the promotion of national health and human welfare. Membership. 742 Supporting Members from all branches of the dairy industry, in addition to several thousand who support only individual affiliated units. President: Milton Hult First Vice President. W A. Wentworth. Second Vice President. George F. Gallagher. Secretary: Wilbur Carlson. Treasurer G. E Wallis. Headquarters 111 North Canal Street, Chicago 6, Illinois The Winter Conference (Annual Meeting) is to be held at the Hotel Traymore, Atlantic City, New Jersey, January 29–31, 1947 The Summer Conference will be held at the Edgewater Beach Hotel, Chicago, Illinois, June 15–19, 1947

Daughters of the American Revolution, National Society of, founded in 1890 for historical, educational and patriotic purposes Membership in 1946 about 151,700 members in 2,570 chapters Mrs Julius Y. Talmadge, President General, Administration Bldg., 1720 D Street, N W , Washington 6, D C.

Society's headquarters are located in Washington, D C., comprising one city block, including Memorial Continental Hall, a building of state rooms with auditorium seating 1600, Administration Building, housing Society's offices; and Constitution Hall, an auditorium seating 4,000—acclaimed concert hall of the city

Society's record of War Work. From D.A R. War Fund —collected from voluntary contributions by members during period of war Over $400,000 00 expended from this fund, through the American Red Cross, for the purchase of equipment for the Blood Plasma Program, i.e. 38 Mobile Blood Plasma Units, located in various cities; 18 stationary Blood Donor Centers, located in cities throughout the United States, Station Wagons, Sedans, Trucks, Canteens, Sterilizer, Heater and Equipment

For the U S Army Wired Program Distribution System at Vaughan General Hospital at Hines, Ill., $61,-200 00, 5 station, individual selective head-set equipment, for 2,500 bed patients.

For the U S Navy 3 Mobile Photo-fluorographic Units (auto trailer) for U.S Navy Medical Corps, 7 portable X-Ray units for hospital ships; 3 field ambulances; $56,-682 00

For the U S. Public Health Service Hospitals—33 Mills Sono-Vision Projectors (Portable Motion Picture Machines) at $570 each—$18,810 00

Steel encased Hammond Electric Organ for Aircraft Carrier, $1,500 00, triptychs (art altar pieces for Armed Forces) $2,000 00; metal body locators—28, purchased by Junior D A.R —$9,800 00

In addition, as war work: War Bonds and stamps subscribed, $206,136,015.06, Buddy Bags made for servicemen 300,000; L C I.—82 ships sponsored by Society; Post War Employment program launched for personnel of L C.I. Ships.

The Society has 24 active national committees covering patriotic, educational and historical fields Most important among these is the Approved Schools program, to which $162,603 81 was subscribed in 1946, whereby 14 mountain schools are assisted by D A.R. funds. Two of these schools in the southern mountains are entirely owned and operated by the D A.R.

Patriotic education for better citizenship is furthered by the Society in aiding under-privileged youths of all races, creeds and color. The Junior American Citizens Clubs, Girl Home Makers, Good Citizenship Pilgrims, and the mountain schools as mentioned above, are all examples.

The D.A.R. Manual for Citizenship, first published in 1921, printed in English and translated into 17 other languages, has been widely distributed. To date over 7,000,-000 copies have been distributed to new citizens.

The principal historic project at present is the Society's undertaking to finance the building of the Bell Tower to house the Bells of the great carillon at Valley Forge, Pa. This tower is being subscribed by donations from members by recording names on metal plates to be placed in the Tower of all American patriots, from the American Revolutionary War, through and including World Wars I and II.

Official publications of the Society, namely, the *National Defense News* and the *Daughters of the American Revolution Magazine*, bring these activities and others to the attention of members and friends

Daughters of Union Veterans of the Civil War, 1861–1865. Inc., organized in 1885 to perpetuate the memory of their fathers. It is affiliated with the Grand Army of the Republic and kindred orders, the Women's Patriotic Conference on National Defense, and the Women's Interests Section, Public Relations, War Department The sum of $1,850 00 was given to the Grand Army of the Republic at their August 1946 Encampment, over $3,000 raised for Projected Books for Veterans' Hospitals, and $400 added to the Scholarship Funds The National President elected August 25, 1946 is Miss Cora E. Gillis, 43 Adams Street, Jamestown, New York. The Organization owns its Headquarters Building, 1326 18th Street, N.W., Washington 6, D C, which is the permanent residence of the National Treasurer. Present membership 35,000

Democracy, Council for, founded in August, 1940, a social action group for the defense and extension of democracy Chairman, Board of Directors, Raymond Swing, President, Ernest Angell, Executive Director, James E. Greer, National Board of Directors (150 members) Headquarters 11 West 42nd Street, New York 18, New York. A non-political, non partisan group, the Council's aim is to stimulate citizen participation in action to meet the issues of democracy It is the coordinating agency for over twenty organizations concerned with questions of national policy—both foreign and domestic

Dental Association, American, founded in 1859 for educational purposes Membership about 60,000 President, Walter H Scherer General Secretary Harry B Pinney. Headquarters. 222 East Superior Street, Chicago 11, Illinois.

Dietetic Association, The American, founded in 1917. Its objective is to improve the nutritional status of human beings, to bring about closer cooperation among dietitians and between dietitians and workers in allied fields, and to improve conditions and raise the standards of dietary work Membership: 7,500 President: Mable MacLachlan Executive Secretary: Gladys E Hall. Headquarters 620 North Michigan Avenue, Chicago 11, Illinois

Documentation Institute, The American, founded in 1937 for the promotion and development of documentation in scholarly and scientific fields. The Institute was organized as a nonprofit corporation, with members nominated by scholarly and scientific agencies President Watson Davis Secretary. Helen M Davis Headquarters Science Service Building, 1719 N Street, N W, Washington 6, D C The annual meeting is scheduled for January 30, 1947, in Washington, D.C.

East and West Association, The, organized in 1941, and devoted to new and better understanding between peoples through mutual knowledge President Pearl S Buck Secretary Albert H. Walsh Headquarters 40 East 49 Street, New York 17, New York During 1946, the Association arranged and conducted forums and courses on the peoples of the world in New York, Philadelphia, Springfield (Mass), Detroit, Chicago, Boston, South Bend, etc. It has also arranged special institutes for librarians and teachers It continues to publish study outlines, picture portfolios about various peoples and reading lists It has introduced a new character, Johnny Everyman, into regularly appearing comic books The Open Door, sponsored by forty ministers and rabbis, mediates cases of discrimination arising from race, color or religion Speakers, informed, non-official representatives of Latin America, Europe, Asia, and Africa are sent out by the Association to all types of groups.

Economic Association, American, founded in 1885 to encourage research, thought and discussion, and issue publications Membership 4,403; 2,025 subscribers President E A Goldenweiser Managing Editor of *American Economic Review* Paul T. Homan Secretary-Treasurer and Editor of *Proceedings* James Washington Bell Headquarters Northwestern University, Evanston, Illinois. Next annual meeting will be held in Atlantic City, N.J., January 23–26, 1947. A quarterly journal, the *American Economic Review* covers a wide range of economic subjects of vital and current importance A Directory, with annual supplements, contains a special-purpose, "who's who" account of members, together with classification by fields of subject matter and geographical location. An information booklet is also published The Association is affiliated with the American Council of Learned Societies and the Social Science Research Council.

Economic Development, Committee for, an independent nonpolitical nonprofit corporation organized by American businessmen in 1942 to help commerce and industry make its maximum contribution towards maintaining high levels of productivity and employment in the postwar period. The Field Development Division, which during the war enlisted the active participation of 70,000 businessmen in 2955 local committees in company-by-company reconversion planning, terminated its activities early in 1946. The Research Division, during the year accelerated its program of studies of the broad problems of government and business, undertaken in cooperation by businessmen and social scientists to establish those principles needed in the creation of conditions favorable to expansion of production and employment. At the same time, an Information Division was organized to obtain nation-wide distribution of the reports and policy statements resulting from CED research and to stimulate the study and discussion of economic problems by businessmen and others. Chairman of the Board of Trustees Paul G Hoffman. Chairman, Research and Policy Committee. Ralph E. Flanders. Chairman, Research Advisory Board· Sumner H Slichter Chairman, Information Committee Walter D. Fuller. Research Director Theodore O. Yntema Director of Information Programs Howard L Volgenau Headquarters 285 Madison Ave, New York 17, New York.

Economic Entomologists, American Association of, founded in 1889 to promote the study, and to advance the science, of entomology and to publish the *Journal of Economic Entomology*, etc Membership. 1,876 President Clay Lyle Secretary Ernest N. Cory Headquarters College Park, Maryland The 1946 meeting was held in Pittsburgh, Pennsylvania

Economic Research, Inc, National Bureau of, founded in 1920 to encourage investigation, research and discovery, and the application of knowledge to the well being of mankind, and in particular to conduct exact and impartial investigations in the field of economic, social, and industrial science Membership 27 members of the Board of Directors President C Reinold Noyes Executive Director. William J Carson. Director of Research, Arthur F. Burns Headquarters 1819 Broadway, New York 23, N Y Eleven publications were issued in 1946 dealing with production and productivity, national income, capital formation, business financing, business cycles, etc

Education, American Council on, a Council of national educational associations, organizations having related interests, approved educational institutions, state departments of education, and city school systems; founded in 1918 as a center of cooperation and coordination in the field of education Membership 905 organizations and institutions. President· George F Zook. Chairman George D Stoddard Headquarters 744 Jackson Place, Washington 6, D C The Council acts as liaison agency between educational institutions and the government, and as a clearing house for information and the exchange of opinion Since the cessation of hostilities it has inaugurated several postwar projects for the expansion of educational facilities and the improvement of educational programs The Council publishes reports of its research projects, other monographs, psychological tests, and a quarterly journal, *The Educational Record*

Education Association of the United States, National (N E A), founded in 1857 to advance the interests of the teaching profession, promote the welfare of children, and foster the education of all the people Membership 340,-973 President Mrs. Pearl A Wanamaker. Executive Secretary Willard E Givens Headquarters 1201 Sixteenth Street, N W, Washington 6, D C See EDUCATION

Education Fellowship, American (formerly Progressive Education Association), incorporated in 1944 to develop and promote progressive principles of education through local chapter organizations, field conferences, preparation and distribution of educational materials, a Service Center for members, and publication of a journal, *Progressive Education* Membership about 8,000 Director Vinal H Tibbetts Headquarters 289 Fourth Avenue, New York 10, New York See EDUCATION.

Electrical Engineers, American Institute of, founded in 1884 for the advancement of the theory and practice of electrical engineering and allied arts and sciences, and maintenance of high professional standing among its members. Membership 26,114. President J Elmer Housley Secretary H H Henline Headquarters 33 West 39th Street New York 18, New York 1947 meetings New York City, January 27–31; Montreal, Quebec, June 9–13; San Diego, California, August 26–29; Chicago, Illinois, November 3–7; district meetings: Worcester, Massachusetts, and Dayton, Ohio.

Elks, Benevolent and Protective Order of, a fraternal organization founded in 1868 Membership 850,000. Grand Exalted Ruler· Charles E Broughton. Grand Secretary J. E. Masters. Headquarters. Elks National Memorial Building. Chicago 14, Illinois. A National Veterans Service Commission is working out detailed plans for the rehabilitation of veterans. The Order maintains at Bedford, Virginia, a home for aged and indigent members. An Elks National Foundation Fund aids crippled children, tubercular patients, and grants scholarships. Expenditures for charitable and welfare purposes amounted to $4,200,000 in 1946. The national journal is *The Elks Magazine*.

English Institute, The, founded in 1939 to afford an opportunity for mature scholars in the field of English to meet together in a series of informal conferences and discuss questions of literary and philological research. Selected papers read at the sessions of 1939, 1940, 1941 and 1942 have been published in the *English Institute Annual.* The fifth session, for which one hundred sixty-nine members registered, was held at Columbia University, September 9–13, 1946. Again in 1947 the Institute will meet at Columbia University in the second week of September Chairman· Dorothy Bethurum, Connecticut College, New London, Connecticut. Secretary. David A. Robertson, Jr., Barnard College, Columbia University, New York 27, New York

English-Speaking Union of the United States, founded in 1920 to draw together in the bond of comradeship the English-speaking people of the world It cooperates with the English-Speaking Union of the British Empire, Dartmouth House, London Membership: about 15,000. Headquarters. 19 East 54th Street, New York 22, New York. Honorary Presidents· John W. Davis and James R. Angell. President Lewis W. Douglas Chairman Henry J. Fisher. Treasurer Henry C. Brunie, General Secretary Mrs W. Henry France. Present activities a national program for hospitality and aid to all overseas brides of American servicemen with committees through the country, resumption of interchange of teachers between Great Britain and the United States with seventy-five British teachers in the United States and seventy-five Americans in Great Britain, 4 British students have been granted scholarship aid to study in American universities under the Sir John Dill Memorial Fund, thirteen American school boys have been sent to England for one year's schooling in British public schools on scholarships

Ethnological Society, Inc., American, founded in 1842. The Society meets regularly at the American Museum of Natural History for lectures and discussions of scientific work and problems in anthropology. It publishes a monograph series of anthropological and linguistic researches. Membership 224 President Hortense Powdermaker Secretary Esther S Goldfrank, Columbia University, New York 27, New York See SMITHSONIAN INSTITUTION.

Eugenics Society, Inc., American, founded in 1926 to promote education and social action relating to eugenics. Membership 500 President Dr Maurice A Bigelow. Secretary Chauncey Belknap Treasurer Frederick Osborn Headquarters 1790 Broadway, New York 19, N Y.

Exchange Club, The National, founded in 1911 for the purpose of educating, improving, and developing the capabilities of the members of the clubs chartered by this corporation and of the citizens of the communities, municipalities, and states in which such clubs are chartered. Membership 40,000. National President. William P. Spear, National Secretary. Herold M Harter, Headquarters 335 Superior Street, Toledo 4, Ohio. As an educational service, the Club publishes an official, monthly publication, *The Exchangite* This magazine reaches the individual members of all Exchange Clubs and carries material that is used by Exchange Clubs locally in presenting the general educational program to the public

Family Service Association of America, founded in 1910 as a voluntary federation of public and private family case work agencies and individuals in the United States and Canada, furthering the development and extension of healthful, normal family life Services reach Member Agencies through direct contact, group consultation, correspondence, and published material. Membership· 230 member agencies President Ralph A. Uihlein. First Vice President Stanley P. Davies Second Vice President: Brooks Potter Treasurer Henry S. Hendricks Secretary Mrs Malcolm J Edgerton Headquarters. 122 East 22nd Street, New York 10, New York. The Biennial Meeting was held at the Hotel Pennsylvania, New York, New York, October 31 through November 2, 1946

Farm Bureau Federation, American, organized in 1920 to meet and solve the pressing economic problems of agriculture Membership 900,000 President Edward A. O'Neal Secretary Treasurer R. B Corbett. Headquarters 58 East Washington, Chicago 2, Ill Since its inception, the Federation has labored to further such projects as adequate farm prices, better farm-to market roads, adequate credit facilities; freedom of competition among transportation agencies; solution of problems of irrigation, adequate appropriations for the Forest Service; development of rural youth programs.

Farm Chemurgic Council, National, organized in 1934, to advance the industrial use of American farm products through applied science Membership 4,000. President. Wheeler McMillen Secretary· Ernest L. Little. Headquarters 1368 North High St, Columbus 1, Ohio Eastern Office. 350 Fifth Ave, New York, New York Southwestern Office· Chamber of Commerce Bldg, Oklahoma City. Oklahoma. The Council has scheduled many meetings for 1947

Farmer Cooperatives, National Council of, founded in 1929 to serve, represent, and coordinate, nationally, the program and efforts of farmers' cooperative purchasing and marketing associations. Membership. 4,600 associations. President Quentin Reynolds. Executive Secretary: John H. Davis. Headquarters, 1731 I Street, N.W., Washington 6, D.C. The regular meeting of Council delegates from all parts of the nation will be held in Chicago, Januarv 6–10, 1947.

Farmers Educational and Cooperative Union of America, founded in 1902, and generally known as the National Farmers Union, is devoted to assuring security of farm families on the land, in an economy of abundance brought about by a free exchange of goods and services Farmers Union works in the fields of education, legislation, and cooperatives to improve the position of family farmers. Membership. 450,000. President James G Patton, Vice President Herbert Rolph. Secretary Treasurer. Tony T. Dechant. Headquarters. 3501 E. 46th Avenue, Denver 16, Colorado.

Fashion Group, Inc., The, was founded February, 1931, as "a non-commercial association of women engaged in fashion work, formed to advance the principles of applied art in industry and to foster good taste in fashion; to encourage the cooperation of those engaged in conceiving, designing, and executing fashions, and, through education and the dissemination of useful information, to inspire a keener interest in fashion industries to the end that those engaged in the field of fashion may better serve themselves and the public at large" Membership 1,524. President: Kay Sullivan. Vice-Presidents. Mary Bass, Adelia B Elliss, and Helen F. Keane. Treasurer. Clare Elliott Executive Director. Ethel M. Kremer Headquarters. 9 Rockefeller Plaza, New York 20, New York During 1946, Monthly Luncheons were held, two to three each month except July and August, and a Fashion Training Course was given Meetings will be held in 1947, monthly, at the Hotel Biltmore, New York, New York.

Federal Union, Inc., founded 1939, was incorporated in 1940 as a non-profit educational membership association to promote "education in the basic principles of federal union as exemplified in the Constitution of the United States with a view to attaining world order by a federal union of democratic peoples." President. Clarence K. Streit. Secretary Brice Toole. Executive Director Don Dennis. Headquarters 700 Ninth St N.W., Washington 1, D C. The United States Treasury has ruled that contributions to Federal Union are deductible from taxable income because of the educational character of its activity In the fall of 1946 the association launched its new monthly magazine *Freedom & Union,* "Journal of the World Republic," with Mr Streit as editor This important new journal takes for its task the securing of peace and freedom in the atomic age, through world government.

Fire Protection Association, National, founded in 1896 to promote the science and improve the methods of fire protection and prevention, to obtain and circulate information, and to secure the cooperation of its members in establishing safeguards against fire loss. Membership· 11,000 President: Curtis W. Pierce, General Manager: Percy Bugbee. Headquarters. 60 Batterymarch Street, Boston 10, Massachusetts See FIRE PROTECTION.

Fire Underwriters, National Board of, an educational, factual, and engineering organization founded in 1866 and supported by the capital stock fire insurance business Membership. 208 President. F. A Christensen General Manager· W. E Mallalieu Headquarters 85 John Street, New York 7, New York The 1947 meeting will be held May 22, in New York City

Food Technologists, The Institute of, established in 1939 to provide a professional organization which will facilitate interchange of ideas, stimulate and promulgate the results of research and work in the application of science to the food industry, and encourage the development of food technology as a profession Membership about 2,000 President. E H. Harvey Secretary-Treasurer George J. Hucker, Geneva, New York Regional sections have been granted charters in Southern California, Northern California, New England, St Louis, New York, Florida, Great Lakes, Western New York, Puget Sound, Philadelphia, Maryland and Chicago

Foreign Relations, Inc., Council on, a nonpartisan, noncommercial research organization, founded in 1917 to study the international aspects of America's political, economic, and financial problems Membership 750. President Allen W. Dulles Vice President Isaiah Bowman Executive Director Walter H Mallory. Headquarters: 58 East 68th Street, New York 21, New York The Council holds meetings and conferences, and maintains a reference library on international affairs. It carries on a program of research and publishes· a quarterly review, *Foreign Affairs;* two annuals, *The United States in World Affairs* and *The Political Handbook of the World;* and individual volumes on international questions. In 1944 the Council acquired its new headquarters, known as the Harold Pratt House, at the corner of Park Avenue and 68th Street It was formally opened by Secretary of State Stettinius on April 6th, 1945

Foresters, Society of American, founded in 1900 to represent, advance, and protect the interests and standards of the profession of forestry and to provide a medium for

the exchange of professional thought. Membership: 4,800. President: Prof. S. W. Allen. Executive Secretary: Henry Clepper. Headquarters: Mills Building, Washington 6, D.C.

Forestry Association, The American, founded in 1875, is a citizens' organization for the advancement of intelligent management and use of the country's forests and their related resources of soil, water, wildlife, and outdoor recreation Membership. 15,000. President W. S Rosecrans. Executive Director. Ovid Butler. Headquarters· 919 Seventeenth Street, Washington 6, D.C. In addition to the publication of a monthly magazine, *American Forests*, the Association carries on educational projects in various fields.

Foster Parents' Plan for War Children, Inc., founded in 1936 to help children of all nationalities suffering as a result of war. International Chairman. Edna Blue. Secretary Treasurer. Ann Landress. Director, Public Relations· Robert Yaller. Executive Secretary. Eric G. Muggeridge Overseas Representatives Mr. and Mrs F. W. Mason. British headquarters 95 Coleman Street, Wool Exchange, London E.C. 2, England. American headquarters: 55 West 42 Street, New York 18, New York. The Plan operates fifty-six projects in England, France, Malta, Italy, Belgium, Holland, and Czechoslovakia; schools for farmers, nurses and social workers, as well as hostels for children of all nationalities—Polish, Czech, French, Dutch, Belgian, Spanish, Austrian, Norwegian, German, Italian, Maltese and British.

Fraternal Congress of America, National, founded in Washington, D C , November 16, 1886, to unite all fraternal benefit societies of America for mutual improvement and concert of actions. Membership· 109 societies President. Walter C. Below. Secretary-Treasurer and Manager. Foster F Farrell. Headquarters. 35 East Wacker Drive, Chicago 1, Illinois. The 1946 meeting was held in September.

French Alliances in the United States and Canada, Federation of, was founded in 1902, as "an association of clubs, societies, and groups formed for the purpose of encouraging and furthering in the United States and Canada the study and cultivation of the language, literature, art, and history of France. Membership 220 societies President: Dr. Guy E Snavely. President, Executive Committee: Richard J. Cronan. Secretary General Robert John Matthew Assistant-Secretary· Lucie Gaidot. Headquarters. 22 East 60th Street, New York 22, New York The Annual General Assembly and Luncheon will be held at the Hotel Plaza, New York, New York, on April 12, 1947

Friends Service Committee, American, founded in 1917, and representing the Religious Society of Friends in fields of social action, engaging in both domestic and foreign projects to express the Quaker principle that constructive and nonviolent service can resolve conflicts. Honorary Chairman Rufus M. Jones, Chairman Henry J. Cadbury, Executive Secretary Clarence E. Pickett, Headquarters. 20 South 12th Street, Philadelphia 7, Pennsylvania.

Future Farmers of America (F.F.A.), founded November 1928, as national organization of, by, and for farm boys studying vocational agriculture in public secondary schools Primary aim, development of agricultural leadership, cooperation, and citizenship Specific purposes intend to strengthen confidence of farm boys and young men in their work; create and nurture a love of country life and intelligent choice of farming occupations, improve the rural home, encourage thrift, scholarship, and organized rural recreation Membership, 205,136 in 6,000 local chapters of 47 States, Hawaii, and Puerto Rico. President Gus R. Douglass, Jr. National Executive Secretary A. W. Tenney Headquarters: U.S Office of Education, Washington 25, D C. During 1946, Star Farmer of America was William G. Carlin, Coatesville, Pennsylvania. Champion public speaker was Marshall E. Schirer, Newton, Kansas. Gold emblem chapters were DeLand, Florida; Talbotton-Woodland, Georgia; Byron, Illinois; Chenoa, Illinois; Buhler, Kansas, Lafayette-Bryan Station, Kentucky, Versailles, Kentucky, Alma, Michigan; Flathead, Montana; Neligh, Nebraska; Norman, Oklahoma, Albany, Oregon, Alpine, Texas, Jasper, Texas; South Emery, Utah; and Unidis, West Virginia The National Convention for 1947 was scheduled for October in Kansas City, Missouri.

Garden Club of America, founded in 1913. Membership: about 8,000 Corresponding Secretary. Mrs. Henry C. Taylor Headquarters: 598 Madison Avenue, New York 22, New York

Gas Association, American, founded in 1918 by holding companies, service companies, gas operating companies, manufacturers of gas appliances and equipment, and individuals. Membership 5,000 President R H. Hargrove. Managing Director· H. Carl Wolf Secretary· Kurwin R. Boyes. Headquarters. 420 Lexington Avenue, New York 17, New York.

Geographical Society, American, founded in 1852; devoted to the advancement of geography in its scientific and cultural aspects, its practical applications, and its bearing on fundamental problems of human existence and human relationships in the different regions of the earth. Membership: 4,900. President: Roland L. Redmond. Director. John K. Wright. Headquarters: Broadway at 156th Street, New York 32, New York. Most recent publications of the Society are: *Japan. A Geographical View* by Guy-Harold Smith and Dorothy Good with the collaboration of Shannon McCune, *Pioneer Settlement in the Asiatic Tropics. Studies in Land Utilization and Agricultural Colonization* ,by Karl Pelzer, the 107th and last sheet of the *Map of Hispanic America*, 1:1,000,000 was issued last year

Geographic Society, The National, founded in 1888 for the increase and diffusion of geographic knowledge. Three hundred thousand new members elected in 1946 brought the total membership to 1,500,000. President: Gilbert Grosvenor. Vice President. John Oliver La Gorce Secretary Thomas W. McKnew Treasurer· Robert V. Fleming Headquarters: 1146 Sixteenth Street, N.W., Washington 6, D.C In fulfilling its aim to diffuse geographic knowledge the Society relies chiefly on its official publication, the monthly illustrated *National Geographic Magazine*, which is sent to every member In the summer of 1946, the Society, in cooperation with the United States Army Air Forces and the Bartol Research Foundation of the Franklin Institute, carried out extensive investigations to determine how the numbers of cosmic rays, streaming toward the earth from outer space vary with altitude and latitude. The researches were conducted from a converted B-29 bomber, equipped with Geiger counters and recording apparatus Round-trip flights were made at 5,000, 15,000, 25,000, and 35,000 feet above sea level over a 4,800-mile course extending from southern Canada to the Magnetic Equator off the northern coast of Chile. The automatic records obtained are now under study Completing eight years of archeological exploration, the Society and the Smithsonian Institution sent a field party, under the leadership of Dr Matthew W. Stirling, to a site near San Lorenzo, Veracruz State, where it uncovered a ceremonial center of the "La Venta Culture" which flourished from about A.D. 500 to 800. This was the third great center of the La Venta Culture excavated by the series of expeditions The party brought to light five colossal heads in human form sculptured from basalt, massive decorated altars, carved monuments, and small art objects, all of superior workmanship Dr. Stirling believes that the civilization exemplified by the La Venta people may have been a forerunner of much of the culture of the Mayas, the Toltecs and the Aztecs Studies of auroras were continued by a joint research project of the Society and Cornell University under the direction of Dr. C. W Gartlein. During the year photographs and photoelectric records were made of more than a score of auroras including the unusually brilliant and extensive displays of the nights of February 7–8, March 23–24 and July 26–27. In its third year of studies of North American birds, an expedition of the Society, led by Dr. Arthur A Allen, carried on work in bird refuges along the coasts of North and South Carolina, and in Georgia, Florida, Texas, northern Mexico, and the Rocky Mountains of the United States Four 10-color wall maps issued as supplements to the National Geographic Magazine were prepared during 1946. More than 6,000,000 of these charts were distributed to the Society's members The map of the Northern Hemisphere covered a land, sea, and ice area of special interest to civil aviation following the development of intercontinental air routes in that part of the world during the War. The postwar map of the United States included information from the most recent aerial and surface surveys. A number of new communities such as Oak Ridge, Tennessee, brought into existence by war activities, appeared for the first time on such a map. The map of India and Burma showed 598 political subdivisions of the British provinces and native states of India Centered near Palestine, the map of the Bible Lands included most of the countries of the Arab League, all of Turkey, and parts of Iran, Bulgaria and Greece *The Geographic News Bulletins* supplying geographic and economic information about places and regions appearing in the news were distributed to more than 500 daily newspapers and approximately 200 radio stations. Illustrated *Geographic School Bulletins* embodying material similar to that in the *News Bulletins* were supplied weekly to more than 35,000 classrooms

Gideons, The International (A Christian Business Men's Association), founded in 1899 to advance the placing of Bibles in hotels, hospitals, penal institutions, and public schools, and has already placed two and a half million Bibles. Membership about 17,000 President Rev. H. Muller. Secretary. Nellie F Dewar. Headquarters 212 East Superior Street, Chicago 11, Illinois The organization has distributed nearly 9½ million Testaments to the Armed Forces.

Girl Scouts, founded in 1912 by Juliette Low at Savannah, Georgia to develop the ideals of citizenship and service to others, in girls from the age of 7 through 17, is a member of the World Association of Girl Scouts and Girl Guides. Girls take part in democratic, self-governing activity in eleven general fields: homemaking; arts and

crafts; nature; the out-of-doors; literature and dramatics; health and safety; community life; international friendship; sports and games; music and dancing; and vocational exploration. Girl Scouting is the largest girls' organization of its kind in the world Membership· 1,151,456 in 8,300 communities. President: Mrs C Vaughan Ferguson. National Director: Mrs. Paul Rittenhouse. Headquarters· 155 East 44th Street, New York 17, New York The thirty-fourth Girl Scout Anniversary Week was celebrated March 12–18, and Girl Scout Week, October 27–November 2, 1946 During 1946 the first Girl Scout and Girl Guide international conferences to be held since the war took place at Evian, France, and Adelboden, Switzerland Girls and adult leaders of the Scout movement met to discuss future international plans and problems of training, program and leadership The first Western Hemisphere Girl Scout training Conference, since the war, took place at Havana, Cuba. Representatives of twenty-two countries attended sessions which began on February 4, 1946 In the United States Girl Scouts contributed $69,275 32 during the period August 31, 1945 to August 31, 1946 to the Juliette Low World Friendship Fund The Fund was begun in 1927 in memory of the founder of Girl Scouts for the promotion of Girl Scouting and Girl Guiding throughout the world as a contribution toward world peace and goodwill It was made available in 1946 for the re-establishment of Girl Scout and Girl Guide headquarters in war devastated countries On July 15, 1946 Girl Scout delegates met with representatives of seventeen youth-serving organizations at a Youth United for Famine Relief conference held at the White House and presided over by President Truman A long-range program for the conservation and increased production of food was launched During the summer of 1946 more than 300,000 Girl Scouts attended camps New camp sites were purchased and more than one hundred new permanent camps established Camp Edith Macy, Pleasantville, New York, which was dedicated in 1926 at the time of the first international encampment held in the United States celebrated its twentieth anniversary Dog Obedience Training was recognized as a regular project of the Girl Scout program in 1946 Girls are taught to train their dogs to obey simple commands and with their dogs undergo American Kennel Club performance tests upon completion of which they are awarded special certificates.

Grange, The National, an Order formed in 1867 to give to the American farmer better social and educational opportunities, economic betterment, and higher spiritual and patriotic idealism, active in cooperative work and in State and National Legislation Membership 800,000 in 8,000 subordinate Granges Master Albert S Goss Secretary: Harry A Caton Headquarters· 744 Jackson Place, N W., Washington 6, D C

Greek War Relief Association, Inc., of the U S A., was founded November 8, 1940, "to solicit, collect and receive monies funds, and contributions, and to expend, give and contribute same for the charitable purpose of furnishing aid and assistance for the relief and suffering of the Greek people" Membership· approximately 25,000 (voluntary) Executive Committee The Most Reverend Athenagoras, Harris J Booras, George P Gavaris, Evangelos T Hardaloupas, William Helis, Charles D Kotsilibas, Van A Nomikos, Thomas A Pappas, Frank E Pofanti, George Skouras Spyros P Skouras, Stephan Stephanidis, Stephan C Stephano, S Gregory Taylor K P Tsolainos, Philip Williams, Executive Vice-President· George Xanthaky Headquarters· 221 West 57th Street, New York 19, New York In its current rehabilitation program, the Greek War Relief gives supplementary school lunches to over 1,000,000 Greek children, and its 425 community and 18 mobile clinics place free medical care within the reach of more than one-third of Greece's rural population Other special projects include aid for Greek disabled veterans and the home placement and support of hundreds of Greek orphans

Grolier Club, The, founded in 1884, for the purpose of "the literary study and promotion of the arts pertaining to the production of books, including the occasional publication of books designed to illustrate, promote and encourage those arts . . " Membership· 467 President: Edwin De T Bechtel Vice-President· Frederick B. Adams, Jr Treasurer· LeRoy E Kimball Secretary Allen Evarts Foster Headquarters· 47 East 60th Street, New York 22, New York Regular meetings, held at 47 East 60th Street, occur on the third Thursday of each month from October through April, except in January when the Annual Meeting is held on the fourth Thursday

Hadassah (The Women's Zionist Organization of America, Inc.), founded in 1912 to foster Zionist ideals in America and to conduct hospitalization, public health, child welfare, land reclamation, and youth refugee work in Palestine, is official American representative of Youth Aliyah Movement Senior membership· 180,000 Junior membership· 25,000 President· Mrs Moses P Epstein. Executive Secretary· Miss J. N. Leibel Headquarters· 1819 Broadway, New York 23, New York During the war Hadassah Medical Center, Mt. Scopus, Jerusalem, was headquarters for wide cooperation program with Allied and American medical authorities. The organization conducts program for democratic action through education among its members in this country. A two hundred fifty-bed tuberculosis hospital and an undergraduate medical school (joint sponsorship by Hadassah and the American Friends of the Hebrew University) are the newest projects It is also now "health arm" of Immigrant Medical Services Department of Jewish Agency. In addition to the Medical Center, the group runs fifty child welfare stations; thirty-six playgrounds; feeds 30,000 children daily; conducts the Louis D. Brandeis Vocational Center; and provides funds for education and maintenance of Youth Aliyah children Newest land project is a village for returning soldiers in Palestine

Health Council, National, founded in 1921 to consolidate and correlate the activities of the member agencies and other activities for the betterment of health Membership: 21 member agencies President· Philip R. Mather Vice President· Ira V. Hiscock, S D. Secretary· Reginald M. Atwater, M D. Treasurer Timothy N Pfieffer Headquarters· 1790 Broadway, New York 19, New York The annual meeting is held in February or March of each year. The outstanding activities of 1946 were the distribution of the Gunn-Platt Report of the Study of Voluntary Health Agencies, in conjunction with the Rockefeller Foundation; and the planning for expansion in Council Activities.

Hebrew Sheltering and Immigrant Aid Society (HAIS) was founded in 1884 The Society assists the migrant Jew in matters of immigration; searches for members of families who were separated as a result of the World War; maintains a transmission bureau through which Americans may send food, clothing, and money to destitute relatives abroad It is supported by voluntary contributions of over 40,000 individuals as well as from Jewish fraternal religious, and labor organizations, representing hundreds of thousands of members President· Abraham Herman Vice-Presidents· Samuel A. Telsey, Solomon Dingol, Joseph Pulvermacher, Murray I Gurfein, Samuel Kalesky, Fredric R Mann, Abraham Minkus, Julius Shafer, and Harry K Wolff Treasurer· Harry Fischel Associate Treasurer· Samuel Goldstein Honorary Secretary Benjamin J Weinberg Executive Director Isaac L Asofsky World Headquarters· 425 Lafayette Street, New York 3, New York The annual meeting of HAIS is to be held in March, 1947.

Henry George School of Social Science, founded in 1932, chartered by the Board of Regents of the University of the State of New York for the purpose of teaching fundamental economics and social philosophy Headquarters in New York, with many branches in cities throughout the United States and Canada Free courses offered in classroom and by correspondence to adult students everywhere Headquarters 50 East 69th Street, New York 21, New York

Hispanic Society of America, The, founded in 1904 as a free public museum and library devoted to Spanish and Portuguese art and literature The collections include paintings, sculpture, ceramics metalwork, furniture, textiles, incunabula, illuminated manuscripts, and other works of art Membership in the Society, which is limited to 100 Members and 300 Corresponding Members, is honorary and includes specialists and scholars distinguished in the Hispanic field President· Archer M Huntington Secretary Herbert E Ives Headquarters· Broadway between 155th and 156th Streets, New York 32, New York The Society has issued about six hundred volumes relating to Spanish art, history, and literature

Historical Association, American, founded in 1884 to promote historical studies, the collection and preservation of historical manuscripts, etc Membership· 3,600 President· Sidney B Fay Executive Secretary· Guy Stanton Ford Headquarters· Study Room 274, Library of Congress Annex, Washington 25, D C The annual meeting in 1946 was held in New York on December 27th

Historical Society, American Irish, was founded in 1897, "to make better known the Irish Chapter in American history" Membership· 2,500 President General· James McGurrin. Treasurer General· John W A Kelley Secretary General· J C Walsh Headquarters· 991 Fifth Avenue, New York 28, New York During 1946, the Medal of Honor was presented to Mr John S Burke.

Home Economics Association, American, organized in 1908 for development and promotion of standards of home and family life Membership· 17,000 individuals, 336 college clubs, and 22 groups of homemakers. President Katharine M Alderman Executive Secretary· Lelia Massey. Headquarters· 620 Mills Building, Washington 6, D C. The 1946–1947 program of work· The objective of the Association was phrased by Ellen H Richards as follows· "Home Economics stands for the freedom of the home from the dominance of things and their due subordination to ideals" and for "the simplicity in material surroundings which will most free the spirit for the more important and permanent interests of the home and of society" The Association, in its program of work for 1946–47 re-affirms its intent to (1) stress the importance of the family and its home as the basic unit of community, state,

national, and international life; (2) promote concern with the important and permanent interests of the family and its home as opposed to those of crass materialism; (3) promote a better understanding of the permanent values of home and family life; (4) participate in sound social action programs directed toward strengthening home and family life; and (5) continue the development of the Association in scope and depth of program, organization, and membership Nation-wide project, "The Consumer Speaks," is being continued in 1946–47 The purpose of this project is to offer consumers an opportunity to cooperate with forward-looking businessmen in improving postwar markets The apprentice training committee has established requirements for training in industrial food service The Membership Standards Committee is conducting a workshop to train twenty people to collect information on the present status of undergraduate work in home economics in sixty representative colleges and universities Seven international fellowships were awarded to young women from Switzerland (1), China (2), England (1), Greece (2), India (1) for 1946–47. The Borden Award was granted to Ruth Blair, University of Colorado, for outstanding work in nutrition in 1945–46 The Association's Ellen H Richards research fellowship for 1946–47 went to Mary Mather, State College, Pennsylvania. An annual meeting will be held in St Louis, Missouri, the week of June 23, 1947.

Hospital Association, American, founded in 1899 to promote the welfare of the people through the development and extension of hospital care. Serving 3,600 hospitals and 2,900 hospital representatives in the United States and Canada through an exchange of educational materials and technical information President Peter D Ward, M D Treasurer Harley A Havnes, M D Executive Director George Bugbee Headquarters 18 East Division Street, Chicago 10, Illinois Seven professional and administrative counseling bodies compile and disseminate information to those interested in the public health and welfare Bacon Library in Association headquarters is the largest library in the world devoted to hospital literature The Hospital Service Plan Commission, comprised of 85 Blue Cross prepayment hospital-care plans and 33 affiliated medical care plans, serves 20 million participants throughout the country The Commission on Hospital Care, a nongovernment public service analysis of health facilities in this country, was inaugurated in 1944.

Hotel Association, American, founded in 1910, to work for a better hotel industry by representing a group of individual businesses of all sizes in social, economic, and legislative matters at the national level by making the best thinking on hotel operation available to all member hotels, by rendering essential services that would be economically unsound if performed by the individual member; and, when so instructed, by speaking for the industry on government matters and subjects of public interest Membership· 5,600. President· Leonard Hicks, Morrison Hotel, Chicago, Illinois First Vice President Howard F Dugan, Hotels Statler Company, Inc, New York, New York Second Vice President Joe H Adams, El Comodoro Hotel, Miami, Florida Secretary· J B Herndon, Jr, Hilton Hotels Corporation, New York, New York. Treasurer· C. J Mack, Mayflower Hotel, Washington, D C Chairman of the Board J E Frawley, Fort Shelby Hotel, Detroit, Michigan. Executive Vice President· Charles A Horrworth, 221 West 57th Street, New York 19, New York Headquarters· 221 West 57th Street, New York 19, New York Time and place of 1947 Annual Convention undetermined

Humane Association, The American, founded in 1877 for the prevention of cruelty to children and animals Membership 11,000 President Robert F Sellar, 135 Washington Avenue, Albany 6, New York Secretary· Eric H Hansen. Approximately 600 affiliates in United States, Canada and Latin America Holding of Annual National Convention resumed in 1946 after suspension during war.

Illustrators, Inc., Society of, founded in February, 1901, to promote and stimulate interest in the art of illustration, past, present, and future, and to give impetus generally toward high ideals in the art by means of exhibitions, lectures, educational programs, social intercourse, and in such other ways as may seem advisable Membership· 400 Honorary President Wallace Morgan President· Arthur William Brown. First Vice President Roy Spreter Second Vice President Fred Ludekens Corresponding Secretary: Budd Hemmick. Recording Secretary· John Vickery Treasurer. James D. Herbert. Headquarters 128 East 63rd Street, New York 21, New York.

Industrial Conference Board, Inc., National, founded in 1916. An independent and non-profit institution for scientific research, education, and practical service and information in the fields of economics and business. President· Dr. Virgil Jordan. Secretary· Clyde L Rogers Headquartrs: 247 Park Avenue, New York 17, New York

Industrial Council, National, founded in 1907 to provide state and local industrial and manufacturing trade associations with a forum for discussion of industrial and associational problems and programs. Membership: 825 associations. Chairman: Ira Mosher. Executive Director: T. M. Brennan. Headquarters: 14 West 49th Street, New York 20, New York.

Industrial Organizations, Congress of (CIO), founded in November, 1935, to bring about the effective organization of the working men and women of America, regardless of race, creed, color, or nationality, and to unite them for common action into labor unions for their mutual aid and protection Claimed membership· 6,300,000 President: Philip Murray Secretary Treasurer James B. Carey. Headquarters 718 Jackson Place, Washington 6, D.C The Congress achieved an outstanding record during the war in all basic war production industries, with CIO workers mainly responsible for a 400 percent increase in production. Served in a consultative capacity to the United Nations Conference for International Organization. Instrumental in forming World Federation of Trade Unions, of which it is a member

Industrial Relations Counselors, Inc., established in 1926 to advance the knowledge and practice of human relationships in industry, commerce, education, and government. Director T H A Tiedemann Headquarters 1270 Avenue of Americas, New York 20, New York. The organization conducts research, offers a consulting service, mainly for industrial corporations, and maintains a specialized industrial-relations library and an information service. Fifteen volumes and twelve monographs had been published by the close of 1946

Industrial Research Institute, Inc., was founded under the auspices of National Research Council in February, 1938 (incorporated 1945), to promote, through the cooperative efforts of its members improved, more economical and more effective techniques of organization, administration, and operation of industrial research, to develop and disseminate information as to the organization, administration, and operation of industrial research, to stimulate and develop an understanding of research as a force in the economic, industrial and social activity of the nation; and to promote high standards in the field of industrial research Reports and papers of general interest and value are released for publication in technical and business journals Medal established 1945, primarily to honor management leadership in industrial research First Medal awarded 1946 to W R Whitney, Organizer and First Director of General Electric Research Laboratory A comprehensive monograph on the management of industrial research written by members of the Institute is to be published in 1947 Book to be authoritative reference work for men administering research and a suitable textbook for graduate courses in universities Membership 86 companies President C S Venable Secretary C G Worthington Headquarters 60 East 42nd St, New York 17, New York Meetings in 1946· Columbus and Cleveland, Ohio, and Rye, New York February 1947 meeting scheduled for Chicago

Infantile Paralysis, Inc., The National Foundation for, founded January 3, 1938, "to lead, direct, and unify the fight against infantile paralysis" Activities include research, education, epidemic aid, and medical care Grants are made to institutions for research in the transmission, prevention, and cure, as well as in improved treatment methods The educational program provides information to professional and lay groups, and scholarships for training of doctors, nurses, and physical therapists in modern treatment methods, health education, medical social work, and orthopedic public health nursing Scholarships and fellowships are offered for training in virology, public health, welfare and social agencies, epidemic preparedness programs are conducted to help communities meet outbreaks Epidemic aid such as money, equipment, personnel and professional consultations is available to communities The Foundation, through its Chapters provides funds to pay for the treatment of needy infantile paralysis patients regardless of age, race, creed or color Membership. 3,070 County Chapters throughout the country. President Basil O'Connor Vice Presidents· Frederick B. Adams, George E Allen, John S. Burke, James V. Forrestal, and William F Humphrey. Vice President and Secretary: William F Snyder Treasurer· Howard W. Dayton. Assistant Treasurer and Comptroller: Louis C. Haughey. Assistant Secretary Earle R Koons. Assistant Secretary and General Counsel· Stephen V. Ryan, Jr. Headquarters 120 Broadway, New York 5, New York

Information Bureau, Inc., National, a nonprofit membership corporation which analyzes national and international charitable organizations for the advice and protection of contributors and philanthropic agencies, founded in 1918. Chairman: Eli Whitney Debevoise. Executive Director D. Paul Reed. Headquarters. 205 East 42 Street, New York 17, New York

International Education, Institute of, a nonmembership organization, founded in 1919 to increase international understanding through interchange of students, arranging tours for foreign lecturers, teacher and librarian exchanges, and publication of books, pamphlets and a *News Bulletin.* The Institute serves as a general clearing house of information in its field Director, Stephen Duggan. Assistant Director: Edgar J Fisher Headquarters. 2 West 45th Street, New York 19, New York For the academic

year 1946–47, about nine hundred fellowships and scholarships were awarded for study at United States colleges and universities. With the end of World War II the European student exchanges with Czechoslovakia, France, Italy, and Switzerland under the auspices of the Institute of International Education have been resumed Other European exchanges will be reopened as soon as possible. The placement of students from the Near and Middle Eastern countries, and from the Philippines has increased greatly The Institute's work in the field of Inter-American cultural relations has continued to expand as in the years since 1939 Of particular importance was a Conference on Foreign Student Problems and Policies, called by the Institute in cooperation with the Department of State It met in Chicago, April 29, 30, and May 1, 1946, and was attended by two hundred college and university administrators and foreign student advisers Assistance has also been rendered to displaced foreign scholars and to refugee and stranded students.

Investment Bankers Association of America, organized in 1912 to serve investment bankers through mutual cooperation, maintenance of high standards of service, self-regulation, and support of appropriate legislation Membership Main office, 700; Branch office, 788. Secretary: Robert Stevenson, 3rd. Headquarters. 33 South Clark Street, Chicago 3

Iron and Steel Institute, American, founded in 1908 to promote the interests of the industry. Membership about 2,000 President· Walter S. Tower Secretary G S. Rose. Headquarters 350 Fifth Avenue, New York 1, New York.

Izaak Walton League of America, Inc , was founded January 14, 1922, to preserve, restore, and use wisely America's renewable natural resources—soil, waters, forests, and wildlife The League operates on a local, state, and national scale through chapters, state divisions, and a national headquarters Membership Over 400 chapters in 40 states National President Tom Wallace National Vice Presidents C M Bryant, Dr David B Charlton, Walter Frye, and Dr Lewis Raddcliffe National Secretary Mort D Tinker National Treasurer Judge Harry D Jewell National Executive Board Dr George B Eusterman (Chairman); Dr W B Holton (Vice Chairman), Paul Chandler, L H Dunten, Dr C C Lillibridge, William H Pringle, Dr John W Scott, Arthur F Senior, and Carl Weygandt Headquarters 31 North State Street, Chicago 2, Illinois The Annual Convention is held in March each year in Chicago

Jewish Women, National Council of, founded in Chicago in 1893, conducts a program of education and action in social legislation, social welfare, overseas service, international relations and peace, and contemporary Jewish affairs Membership 65,000 in 200 Senior, 65 Junior, and 35 Councilette Sections throughout the United States. President Mrs Joseph M Welt Recording Secretary Mrs Simon Sobeloff Executive Director Mrs Elsie Elfenbein Headquarters 1819 Broadway, New York 23, New York During 1946, a greatly-expanded Overseas Service Section implemented four projects designed to assist European Jews These services included (a) Opening of a home for unattached Jewish girls in Athens, Greece, and preparations for opening a similar home in Paris, France; (b) Establishment of a number of social work scholarships for European women who will be brought here for one or two years of study, then return to their own countries for greater social reconstruction work The first of these recipients, women from Holland, France, and Tunis, are already here, (c) Maintenance of four trained social workers in displaced persons camps in Europe, working jointly with the Joint Distribution Committee; (d) Initiation of a Ship A-Box program for Jewish war orphans in Europe and China

Joint Distribution Committee, Inc , American Jewish (J.D C.), founded during the first World War to give emergency and constructive aid to needy Jews overseas Membership 7,500 in the national council Chairman· Edward M M Warburg Executive Vice-Chairman: Dr. Joseph C. Hyman Secretary, Moses A. Leavitt Headquarters 270 Madison Avenue, New York 16, New York In 1946 the J D C appropriated over $55,000,000 to provide relief and rehabilitation and other assistance to upwards of 1,000,000 Jews in nearly fifty countries throughout the world including almost every country of Europe. It supplied food, clothing, medical aid, child care, vocational training, economic assistance, cultural aid, religious help and emigration assistance In the United States J D C. received its funds through the $100,000,000 United Jewish Appeal South Africa, Canada, Australia, Brazil, Argentina, Mexico, Cuba and other countries also participated in J D C 's world-wide relief program

Junior Leagues of America, Inc , Association of the, founded in 1921, to unite the 161 Junior Leagues and through them educate their members for effective volunteer service in community agencies and for shaping welfare and cultural programs Membership 44,000 President Mrs Ralph J Jones Executive Secretary Mrs. C. H L. Pennock. Headquarters Hotel Waldorf-Astoria, New York 22, New York.

Just and Durable Peace, Commission on a, formed in December, 1940, to clarify the mind of Christian churches regarding the spiritual, moral, and economic foundations of an enduring peace. Membership· 100, Chairman· John Foster Dulles Secretaries Dr Walter W. Van Kirk and Reverend Richard M Fagley Headquarters: 297 Fourth Avenue, New York 10, New York Activities in 1946 included the preparation of a statement of postwar objectives for the Federal Council of Churches, adopted in March, 1946, under the title *Churches and World Order,* and the preparation for the Federal Committee of an analysis of Soviet Western tensions, entitled *Statement on Soviet-American Relations.*

Kindergarten Association, National, founded in 1909 to help secure the advantages of kindergarten education for all the nation's children Membership varies from 2,245 to 8,000 President Mai Bradley Martin Executive Secretary· Bessie Locke Editor Florence Jane Ovens Headquarters· 8 West 40th Street, New York 18, New York. The Association daily gave advice to applicants who wished a class opened in a public school, furnished many hundreds of thousands of free leaflets on kindergarten values, and loaned prepared programs, supplementary material, and the film· *A Day in the Kindergarten* In 1946, legislative campaign procedure for 1946 and 1947 went forward, effort being made to arouse among leaders of state organizations an interest that would culminate in securing better kindergarten laws As a result of other work done by the Association in 1946, 1,800 children were enrolled in new kindergartens, bringing the total since 1909 to over 1,349 000 children Weekly Home Education Articles, dealing with child behavior problems, were furnished free to the press and to Home Demonstration Agents, the combined circulation of the periodicals printing them is over 33,630,000

King's Daughters and Sons, International Order of The, founded 1886, 144 East 37th Street, New York 16, New York. Miss Kate C Hall, Executive Secretary Membership individual, approximately 60,000; Circles, Unit organization, approximately 2,500 Purpose and Activities To develop spiritual life and stimulate Christian activities The Order maintains homes for the aged, for children, summer camps, hospitals and other welfare institutions It carries on educational activities Periodical *The Silver Cross,* monthly, except July and August Price $1 00 per year Expansion Educational program through Summer School under direction New York University college credits through Scholarships from Branches

Kiwanis International, founded at Detroit in 1915 to develop a closer relationship between leaders of business, industry, the professions, and agriculture, and for civic, social, and welfare service to their respective communities Membership 170,000 in 2,550 clubs throughout the United States, Canada, and Alaska President· J N. Emerson, Pullman, Washington Secretary O. E Peterson, Chicago, Illinois General Office 520 North Michigan Avenue, Chicago 11, Illinois Club activities include participation in public affairs, service to underprivileged children, work among boys and girls, fostering closer rural-urban relationships, support of churches in their spiritual aims, promotion of soil conservation, encouragement of better business standards, assistance to returning veterans, and aid in postwar reconversion The motto of Kiwanis is "We Build," while the 1947 theme is "Build for Peace—Patriotism—Opportunity" The 1947 Convention will be held at Chicago, June 29 to July 3

Knights of Columbus, a fraternal benefit society founded in 1882 Membership 625,000 Supreme Knight John E. Swift Supreme Secretary Joseph F Lamb Headquarters P O Drawer 1670, New Haven 7, Connecticut

Knights of Pythias, a fraternal organization founded in 1864 Membership· 300,000 Supreme Chancellor· Willard M Kent, Ithaca, New York Supreme Keeper of Records & Seal. M M Ewen, 1054 Midland Bank Building, Minneapolis 1, Minnesota The Supreme Lodge meets biennially, the next meeting to be in Milwaukee, Wisconsin, August, 1948.

Labor, American Federation of, founded November 15, 1881, a federation of national and international unions; state federations of labor, city central bodies; affiliated local unions; departments; and councils of unions employed in overall industries Its purpose is the advancement of workers' interests economically, politically, and socially Dues-paying-membership as of August 1946, 7,123,943 President William Green. Secretary Treasurer George Meany. Headquarters A F of L Building, 901 Massachusetts Avenue, N W , Washington 1, D.C.

Law Institute, The American, founded in 1923 to promote the clarification and simplification of the law and its better adaption to social needs, to secure the better administration of justice, and to encourage and carry on scholarly and scientific legal work. Membership· 850. President George Wharton Pepper Director William Draper Lewis Headquarters. 3400 Chestnut Street, Philadelphia 4, Pennsylvania.

Legal Aid Organizations, National Association of, founded in 1921 as a central body representing organizations engaged in rendering legal aid service to promote the work and to cooperate with the judiciary, the bar, and

all organizations interested in the administration of justice. Membership: 59 organizations. Honorary President: Hon. Frederick M. Vinson President· Murray Seasongood. Secretary: Emery A. Brownell. Headquarters· 25 Exchange Street, Rochester 4, New York. Emphasis of the work in 1946 was on providing legal aid and referral service to returning veterans. Member organizations supplement Army and Navy Legal Assistance offices. Over 46,000 cases for servicemen and veterans were handled by them during the year. The Association collaborates with the American Bar Association in the establishment of needed legal aid facilities in cities which are without such service. Publications include: *Committee Reports and Proceedings, Annual Directory,* and the *NALAO Brief Case.*

Legion of Decency, National, founded in 1934 to review and evaluate morally, current entertainment feature motion pictures and to encourage wholesome standards of morality and decency in the cinema The Motion Picture Department of the International Federation of Catholic Alumnae is the reviewing group for the Legion of Decency. Membership of the Episcopal Committee on Motion Pictures 5. Executive Secretary. The Very Rev. Monsignor John J. McClafferty Assistant Executive Secretaries· The Rev. Brendan Larnen, O P., The Rev. Patrick J Masterson Chairman, Motion Picture Department, I F O A · Mrs. James F. Looram Headquarters. 35 East 51 Street, New York 22, New York

Library Association, American (A.L.A.), founded in 1876 to provide complete and adequate library coverage for the United States and Canada. Membership· 15,000. President: Mary U. Rothrock Executive Secretary. Carl H. Milam Headquarters· 50 East Huron Street, Chicago 11, Illinois International Relations Office Library of Congress Annex, Washington, D.C. Director: Harry M. Lydenberg National Relations Office: 1709 M Street, N.W., Washington 6, D.C. Director: Paul Howard. Among the major accomplishments of the year were the introduction in Congress of the Public Library Service Demonstration Bill (Hill-Douglas Bill HR 5742, S1920), final approval by the War Assets Administration of transfer of surplus army libraries to the states; completion by a board of specialists of the *National Plan for Library Service,* to be published soon; the announcement of new standards of salary and tenure for library employees; increased participation in international cultural affairs including surveys of library service in occupied Germany, an official observer sent to Japan to help plan reeducation; and active participation in the planning of UNESCO. The first annual A.L.A. conference since 1942 was held in Buffalo, New York, June 16–22, 1946, and drew an attendance of 2,500 Public Library Trustees cited for outstanding service were James J Weadock of Lima, Ohio, and Mrs Myrtle J. Price of Tuscaloosa, Alabama. The Newbery Medal went to Lois Lenski for *Strawberry Girl,* the Caldecott Medal to Maud and Miska Petersham for *The Rooster Crows*

Library Association, Inc., The Home and School, founded in 1938 and incorporated February 10, 1940, as a nonprofit organization to aid educationally rural mountain schools, libraries, and individuals; and to foster a much better appreciation for things American and the traditional American way of life as well as a better interest in good books. Membership· 5 Treasurer· Hon Leer Buckley Executive Secretary: Paul J Hines Headquarters· Central Bank Building, Lexington 3, Kentucky During 1946, good books and magazines were methodically circulated among schools and individuals in Kentucky and adjacent states south of Kentucky. Annual Meetings are held the first Monday in April, in Lexington, Kentucky

Library Association, The, founded in 1877 (incorporated by Royal Charter in 1898) to unite all persons engaged or interested in libraries, hold examinations and maintain a professional register, promote the establishment of public libraries, encourage bibliographical study, publish journals, and hold conferences. Membership· 6,500. President· R. J Gordon Secretary· P S J Welsford Headquarters: Chaucer House, Malet Place, London, W C 1, England.

Lions Clubs, International Association of, founded in 1917 as an international association of Lions Clubs, composed of business and professional men interested in the development of their communities. Membership 810,000, in 5,700 clubs located in 18 countries; namely. Bermuda, British Honduras; Canada; China; Colombia; Costa Rica; Cuba; Curacao, N.W I.; Ecuador; El Salvador; Guatemala, Honduras; Mexico; Nicaragua; Panama; Peru; the United States; and Venezuela. President· Clifford D. Pierce Secretary-General· Melvin Jones. Headquarters: 332 South Michigan Avenue, Chicago 4, Illinois. The activities of the Association have eight classifications: boys and girls; citizenship and patriotism; civic improvements; community betterment; education; health and welfare; safety; sight conservation and blind. From May 1, 1945, to April 30, 1946, 81,516 separate activities were reported by Lions Clubs. The official publications of the organization are the *Lion Magazine* and *El León* (Spanish), both issued monthly.

Management Association, Inc., American, an organization of more than 9,000 companies and individual executives, in all industries, interested in the practical solution of current management problems and development of the science of management in personnel and industrial relations, marketing, insurance, finance, office administration, packaging, and production by a broad exchange of information and experience through conferences, publications, and research During the year 1945–1946 AMA held eleven conferences with a total attendance of 8,880 persons, published more than seventy-five reports, pamphlets and research studies including *The Management Review* (monthly) and *Personnel* (bi-monthly), the equivalent of fifteen or sixteen standard size books. President Alvin E. Dodd. Chairman of the Board John M Hancock Secretary· Henry J. Howlett Editor· James O. Rice. Headquarters. 330 West 42nd Street, New York 18, New York.

Manufacturers, The National Association of (N.A.M.), reached its fifty-first anniversary January 22, 1946. Today the National Association of Manufacturers has more than 15,000 active members and approximately 1,500 cooperating members Affiliated with the Association is the National Industrial Council, a federation of some 350 national, State, and local associations of employers The Association is governed by a board of directors of 143 members which meets nine times a year Approximately two thousand executives, representing industries, large and small, in all parts of the United States, serve on standing committees and special committees of the Association and meet time and again throughout the year to reconcile geographical and industrial differences on every subject of general interest to industry Once every four years, when national presidential elections are held, the Association presents to the major political parties organized industry's recommendations as to the principles required for solution of major national problems In December of each year is held the Congress of American Industry, bringing together several thousand manufacturers for conference upon major national and industrial problems and for discussion of their own major responsibilities and opportunities Besides this annual Congress of American Industry, the association each year holds numerous regional meetings in different parts of the United States, for the purpose of bringing together its members in different sections The Association has been, and is, actively engaged in studying problems connected with the prevention or control of inflation, government finance, international economic relations, industrial relations, taxation, and the termination of war controls In advancing the interests of its members, the Association operates through eight departments It has a Government Finance Department, which operates in connection with government spending and tax committees The Industrial Relations Department operates through committees on industrial-relations policy, labor legislation, supervisory relations, etc The Social Security Department deals with problems involved in the national Social Security Act The Public Relations Department handles the public-relations phases of the Association's work. One of the most important functions of the National Association of Manufacturers is its service as industry's interpreter to the public To reach the public, the Association uses every available medium—radio, newspapers, motion pictures, advertising, and booklets It has committees promoting cooperation with farmers, with clergymen, with educators, and with leaders of women's clubs throughout the country, endeavoring thus to bring about a greater understanding of industrial problems and viewpoints The Research Department supplies information for all of the Association's committees, departments, and officers, and makes special studies of many important problems The Law Department serves primarily as a legal adviser to the Association, its officers, committees, and board of directors. Through its *Law Digest* and other publications, the Law Department gives to members a review and analysis of new laws, regulations, and decisions affecting industry The Member Relations Division, comprising four units, deals with all aspects of relations between the Association and its members at both the national and local level The Patents and Research Department deals with problems involved in patent legislation Headquarters· 14 West 49 Street, New York 20, New York; it also maintains offices in Washington, San Francisco, and Los Angeles; in addition, regional offices are maintained in the following cities· Chicago, Illinois, Dallas, Texas; Denver, Colorado; Atlanta, Georgia; St Louis, Missouri; Philadelphia, Pennsylvania; Portland, Oregon; and Seattle, Washington. Chairman of the Executive Committee· Robert M. Gaylord Chairman of the Board: Ira Mosher. President· Robert R Wason. Executive Vice President: Walter B Weisenburger, Secretary. Noel Sargent. Treasurer: Kenneth R. Miller.

Mathematical Society, American, founded in 1888 for the promotion and publication of research in mathematics Membership: 3,100. President: Einar Hille. Secretary J. R. Kline. Headquarters Low Memorial Library, Columbia University, New York 27, New York. A normal schedule of meetings was maintained for 1946. This included sectional meetings in New York, New York, in

February and April, in Princeton, New Jersey, in November, in Chicago, Illinois, in April, in Ames, Iowa, in November, in Los Angeles, California, in November, a Summer Meeting at Cornell University and an Annual Meeting at Swarthmore College. The Policy Committee for Mathematics, representing the American Mathematical Society, the Association for Symbolic Logic and the Institute of Mathematical Statistics studied problems which confronted the mathematicians in their relation to other sciences and the national welfare during the postwar period. Meetings already scheduled for 1947 are New York, New York, in February, April and October, Chicago, Illinois, in April; far west in April, Summer Meeting at Yale University; Annual Meeting at University of Georgia.

Mayors, United States Conference of, founded in 1932 as a clearinghouse for American cities on problems of municipal government. Membership: 250 cities over 50,000 in population. President. Mayor Edward J Kelly Executive Director: Paul V. Betters. Headquarters. 730 Jackson Place, Washington 6, D C.

Mediaeval Academy of America, founded in 1925 to conduct, encourage, and support research publication, and instruction in mediaeval record, languages, literature, arts, archaeology, history, philosophy, science, and all other aspects of mediaeval civilization. Membership· 1,100 President George R. Coffman. Executive Secretary. Charles R D Miller. Headquarters. 1430 Massachusetts Avenue, Cambridge 38, Massachusetts. The Haskins Medal, offered annually for a distinguished publication in the field of mediaeval studies, was awarded in 1946 to Jonathan Burke Severs for his book, *The Literary Relationships of Chaucer's Clerk's Tale.* Two volumes concerned with the Middle Ages were published in 1946. *Speculum,* the journal of the Academy, is published quarterly

Medical Association, Canadian, founded in 1867 and interested in all matters concerning the practice of medicine Membership· 8,000 President Wallace Wilson, M D , Vancouver General Secretary T. C Routley, M.D. Headquarters. 135 Saint Clair Avenue West, Toronto 5, Ontario

Mental Hygiene, Inc , The National Committee for, founded in 1909 to promote interest and action throughout the United States in the prevention and control of mental illness and the conservation of mental health Elected membership· over 700 Medical Director Dr. George S Stevenson Headquarters 1790 Broadway, New York 19, New York

Metals, American Society for, an organization devoted to the promotion of the arts and sciences connected with either the manufacture or the treatment of metals Membership. 19,912 President: A L Boegehold Secretary: W. H Eisenman Headquarters 7301 Euclid Ave , Cleveland 3, Ohio Twenty Eighth National Metal Congress and Exposition, Atlantic City, New Jersey, November 18 to 22, 1946 Fifth Western Metal Congress and Exposition, Oakland, California, March 22 to 27, 1947

Meteorological Society, American, founded in 1919 for the development and dissemination of knowledge of meteorology in all its phases and applications, and the advancement of its professional ideals Membership 2,700. Executive Secretary Kenneth C Spengler Headquarters: 5 Joy Street, Boston 8, Massachusetts The Society publishes the *Bulletin, Journal of Meteorology* and *Meteorological Monographs.*

Mineralogical Society of America, founded in 1920 for the advancement of mineralogy, crystallography, petrology, and allied sciences Membership. about 1,000 President: Paul F. Kerr, Columbia University, New York 27, New York. Secretary C S Hurlbut, Jr. Headquarters. Harvard University, Cambridge 38, Massachusetts.

Mining and Metallurgical Engineers, American Institute of, founded in 1871 to promote the arts and sciences connected with the production of useful minerals and metals and the welfare of those employed in these industries. Membership 15,000 President. Clyde E. Williams Secretary, A B Parsons Headquarters 29 West 39th Street, New York 18, New York

In 1946 the William Lawrence Saunders Gold Medal was awarded to Fred Searls, Jr , the Anthony F. Lucas Medal to James Ogier Lewis; the J. E. Johnson, Jr. Award to John J Alexander

Mission to Lepers, Inc , American, organized in 1906, incorporated in 1920, to aid and preach the Gospel to people suffering from leprosy and to encourage their segregation, care, and medical treatment throughout the world Membership 60,000 President Dr Wm. Jay Schieffelin, General Secretary: Dr. E. R. Kellersberger Associate Secretary, Raymond P. Currier Headquarters· 156 Fifth Avenue, New York 10, New York During 1946 the General Secretary made a world trip of observation, visiting sixty-six leprosaria in fourteen countries, with special emphasis on a training and prevention program in the Congo and in Ethiopia.

Modern Language Association of America (M.L A.), organized in 1883 to promote literary and linguistic research in all the fields of the Modern Languages and Literatures. Membership: 4,300. President: Ernest Hatch Wilkins. Secretary: Percy W. Long. Headquarters: 100 Washington Square, New York 3, New York.

Moose, Loyal Order of (Supreme Lodge of the World), a fraternal organization founded in 1888. Membership. 769,297. Director-General: Hon. James J. Davis. Supreme Governor. Leo W. Ryan Supreme Secretary. Malcolm R. Giles. Headquarters Mooseheart, Illinois.

Municipal Association, American, the national federation of the State Leagues of Municipalities, founded in 1924. It carries on activities designed to assist member leagues in their work of serving and representing their member municipalities. Membership· 41 State Leagues, representing 9,000 cities and towns. President R. E. Riley, Mayor, Portland, Oregon. Executive Director Earl D. Mallery. Headquarters 1313 East 60 Street, Chicago 37, Illinois. The Association provides a consulting service on special phases of municipal government, and keeps its members informed of Federal legislation affecting municipal government; it represents the interests of municipalities nationally, in much the same way that the State leagues represent municipalities before the State governments

Municipal League, National, a nonprofit citizen organization founded in 1894 and serving as a national clearinghouse for information on local government improvement, through the preparation of model laws, and administrative systems and cooperation with local civic organizations. Membership. 2,000 President Hon. Charles Edison. Executive Secretary· Alfred Willoughby. Headquarters 299 Broadway, New York 7, New York. Publications. *National Municipal Review,* published monthly, except August, and various books, pamphlets, and reports. Annual conference on government was held in November, 1946, in Philadelphia in observance of 50th anniversary of founding Special publications in 1946 were *The American County—Patchwork of Boards, Model State Constitution* (revised), *A Model State Civil Service Law* (revised), and *Model Accrual Budget Law.*

Museums, American Association of, founded in 1906 to help museums solve their problems and increase their usefulness Membership 1,100 President· David E. Finley. Director· Laurence Vail Coleman Headquarters Smithsonian Institution, Washington 25, D C The Association has two major functions—long range work that shapes broadly the courses of museum development, and direct and immediate usefulness to museums The former program was advanced during 1946 through a study of museum buildings A book on this subject is planned as a contribution to the anticipated postwar building of museums in many cities The Association's program of direct service is being carried forward as usual through serial publications and consulting work The Association publishes *The Museum News,* a bi-weekly paper devoted to news of the museum world, which completed its 23rd volume in 1946

Music Clubs, National Federation of, founded in 1898 for the purpose of "bringing into working relation with one another music clubs and individuals directly or indirectly associated with musical activity for the purposes of aiding and encouraging musical standards throughout America." Membership about 500,000 members in 5,000 clubs. President Mrs. Guy Patterson Gannett Secretary. Mrs. H. Carroll Day. Publications and Business Office. 113 East Green Street, Ithaca, New York. New York Headquarters office. 455 W. 23rd Street, New York 11, New York. During the war the Federation outfitted all hospital ships and trains, carrying American wounded, with records, phonographs, and musical kits. Its gifts of musical equipment for the armed forces in this country and abroad total two and a half million articles Through an active "Music in Hospitals" program inaugurated in 1944 in cooperation with the American Red Cross, the organization not only has trained scores of highly-skilled performers to take ward music into the army and navy hospitals throughout the country, but has now taken over a similar program in Veterans Facilities It is providing musical instruments for these hospitals, and in most instances, keeping them in repair It has made substantial gifts of musical equipment to orchestral groups overseas as a part of its combined War Service Extension and International Music Relations program This work is being continued with the armies of occupation. Its Biennial Young Artists Auditions, for which four prizes of $1,000 each are offered, are continuing with the next scheduled for the spring of 1947 Annual Young Composers Contests are held with a top prize of $150 and several smaller prizes An intensified American Composition program has been started, a feature of which is the distribution of monthly lists of reviews of all new American works in the serious music field to federated clubs, schools, and libraries The Federation is making an annual selection of works of American composers which its Orchestras Committee recommends to leading conductors for inclusion in their programs. The Federation publishes the *Music Clubs Magazine* issued bi-monthly September to June.

Music Council, Inc., National, organized April, 1940, to provide a forum for the discussion of problems affecting

national musical life, to speak with one voice for music in the United States when this is desirable, to provide for an interchange of musical information, to encourage coordination of effort among musical organizations, to conduct surveys, to encourage the development of music and to foster the highest ethical standards in it. Membership: limited to nationally active musical associations; now numbers 41 such associations, with individual membership of over 600,000. President. Howard Hanson. Executive Secretary Edwin Hughes. Headquarters: 338 West 89th Street, New York 24, New York. The Council publishes in its *Bulletin* digests of proposed and enacted national legislation affecting music, source information on musical activities in various departments and agencies of the Federal Government, lists of musical contests and competitions, annual surveys of the programs of the major symphony orchestras of the United States, other surveys of national musical activities, information as to the use of music in industry, in hospitals, and in various other fields which affect the national music picture, and news of the activities of its member organizations. The Council made and published the first nation-wide survey of the *Use of Music* in Hospitals for Mental and Nervous Diseases, now in its third printing The Council was designated by the State Department as the only musical organization among the fifty national associations invited to send representatives to the National Commission for the United Nations Educational, Scientific and Cultural Organization The Council is represented on the Music Advisory Committee of the Division of Cultural Relations in the State Department. The annual meeting is held in May, and general sessions of the Council are called during each year as occasion demands.

Music Education League, Inc., The, founded in January, 1923, as a non profit organization to aid in developing in the young the qualities of character and culture generally considered most necessary for the individual's happiness and welfare, and for his usefulness to society, through a carefully planned and intelligently employed program of music education. All teachers and students participating in the auditions are members, which brings the membership total for the past 23 years to more than 250,000. President and Acting Treasurer Isabel Lowden (Founder) Secretary: J. Vincent O'Connor. General Chairman of Auditions: T. Tertius Noble. Auditions Chairman for Public Schools. Dr. George H. Gartlan. Chairmen for Catholic Schools· Norman A. McCulloch and Rev. John W. Ziemak. Headquarters: 119 West 57th Street, New York 19, New York. During 1946, fifty-seven sessions of auditions for piano, strings, and for school choruses, orchestras and bands, and for vocal soloists were held between March 1 and May 30, including finals for vocal and instrumental groups at Town Hall, May 21–24 At the Town Hall concert, April 24, the piano concerto winner was Laura Fortune King, and the lyric soprano winner, Carmen Abel. The prize for winners of these classes is always a performance with symphony orchestra at Town Hall. The Town Hall Concert, September 22, presented winners of all ages of the 1945–1946 season, followed by presentation of certificates and pins to all soloists and members of small ensembles entered in the 1945–46 season, while cups and certificates were the awards presented to large school groups. During 1947, auditions for soloists will be held in New York City; Glen Cove, Long Island, New York; Danbury, Connecticut; Mineola, Long Island, New York; New Rochelle, New York, and possibly in Yonkers, New York. For school groups, preliminaries will be held in New York City and in Philadelphia, Pennsylvania Final events for all classes will be held in New York City, between May 1 and May 30—the final for soloists in the Steinway Music Salon, and for school groups, in Town Hall.

Musicians of United States and Canada, American Federation of, was founded in October, 1896, to improve working conditions of organized musicians Membership Over 150,000. President James C. Petrillo Vice President: Charles L Bagley. Secretary. Leo Cluesmann Treasurer: Thomas F Gamble Headquarters. Secretary's office, 39 Division Street, Newark 2, New Jersey The Federation will hold a convention during the first week in June, 1947.

National Guard Association of the United States, founded in 1878 to advance the interests of the National Guard, improve its armament, equipment, and training for the greater security of the nation. Membership includes the entire complement of officers of the National Guard in each state and territory, totaling about 250,000. President: Maj. Gen. Ellard A Walsh, State Capitol, St. Paul, Minn. Secretary· Brig. Gen. Fred M. Waterbury, 70 East 45 Street, New York 17, New York.

Nature Association, American, founded in 1922 to stimulate public interest in every phase of Nature and the out-of-doors, and to further the practical conservation of the great natural resources of America. Membership· 82,000. President. Richard W. Westwood. Secretary: James A. O'Hearn. Headquarters· 1214 16th Street, N.W., Washington 6, D C. Official organ of the Association is *Nature Magazine.*

Near East Foundation, an organization founded in February, 1930, for humanitarian and welfare activities in the countries of the Near East. Membership: 50,000. President: Cleveland E. Dodge. Executive Secretary: Edward C. Miller. Headquarters: 17 West 46 Street, New York 19, New York. The Foundation is actively engaged in war relief work in the Near East. From 1940 through June 1946 it collected a total of $2,574,784.96. The beneficiaries of this money will be the unfortunate war victims in Greece, Syria, Cyprus, Iran and Lebanon.

Netherlands-America Foundation, Inc., founded in 1921 to deepen understanding and friendship between the Netherlands and the United States through educational and cultural channels. Membership 419 Honorary President: Thomas J Watson President Peter Grimm Secretary: Charles P. Luckey. Executive Secretary: Thomas E. Freeman. Headquarters 10 Rockefeller Plaza, New York 20, New York. The Annual Meeting is held the third Monday in January. The most important project at the present time is to procure scholarships which will enable Dutch students to come to this country and study in our colleges and universities. Reception in honor of Dr. Eelco N. van Kleffens, the Netherlands Delegate to the Security Council, United Nations, and Mme. van Kleffens was held on Friday, May 10 in the New Amsterdam Room of 10 Rockefeller Plaza.

New Education Fellowship, The, founded in 1915 to promote the unity of educators throughout the world, is interested in progressive education Chairman Dr Laurin Zilliacus, Teachers College, Columbia University, New York. Secretary Miss Clare Soper. International Headquarters 1 Park Crescent, London, W 1, England In 1946 International Book Club was started—a plan by which educators in various countries can receive books published by N E.F (Subscription $4.50 a year). The Fellowship published series of monographs on new plans in education in liberated countries, held a European conference in Paris, August, 1946, and sent an international delegation of speakers to Australia to hold conferences in all capital cities. In 1947 it plans workshops on International Relations, at Easter and in Summer, in England.

Newspaper Publishers Association, American, founded in 1887 to foster and protect the interest of the newspaper publishing business. Membership 760 President William G. Chandler. General Manager. Cranston Williams Headquarters 370 Lexington Avenue, New York 17, New York The 1947 meeting will be held in New York City at the Hotel Waldorf-Astoria April 22–24, 1947.

Numismatic Society, The American, founded in 1858 for the collection, preservation, and study of coins, medals, and decorations of all countries Membership. 507 President Dr. Herbert E Ives Secretary and Curator Sydney P Noe Headquarters Museum at Broadway and 156 Street, New York 32, New York Meetings are held at the Museum on the second Saturday in January, April, and November.

Nutrition Foundation, Inc., The, organized in December, 1941, to develop and apply the science of nutrition as a basic science of public health Membership. 51. Chairman of the Board Karl T Compton. President: George A. Sloan. Scientific Director: Charles Glen King Executive Secretary Ole Salthe Headquarters Chrysler Building, New York 17, New York From May, 1942, when the initial grants were made, to June 30, 1946, the Foundation appropriated $1,209,455 for 125 studies in the science of nutrition at 49 leading universities and hospitals. The Foundation publishes *Nutrition Reviews,* a monthly journal providing an unbiased review of the world's current research literature in the field of nutrition The Foundation also publishes *Nutricion,* a Spanish edition of *Nutrition Reviews,* in the interests of medical and public health education in the Spanish speaking Americas, and in the promotion of cultural relations. The Foundation publishes annually a *Report of the Scientific Director,* of which copies are available upon request

Occupational Therapy Association, American, founded in 1917 to promote the use of occupational therapy; and for education, training, research, and other activities advantageous to the profession. Membership 2,500 President· Mrs. Winifred Kahmann, O T R. Treasurer Holland Hudson Executive Secretary Mrs. Meta R Cobb Headquarters: 33 West 42nd Street, New York 18, New York.

Odd Fellows, Independent Order of, a fraternal organization founded in 1819. Membership· 1,442,813. Sovereign Grand Master: C A. Wheeler Sovereign Grand Secretary. Edw. G. Ludvigsen. Headquarters 16 West Chase Street, Baltimore 1, Maryland. The 1947 meeting will be held in Winnipeg, Manitoba, Canada.

Oriental Society, American, founded in 1842 for the promotion of research in oriental languages and cultures and the publication of books and papers. Membership: 831. President· L Carrington Goodrich. Secretary: Ferris J. Stephens, Yale University, New Haven, Conn.

Ornithologists' Union, The American, founded in 1883 for the advancement of ornithological science, publication of a journal and other works. Membership. about 1,800. President: Hoyes Lloyd Secretary. Lawrence E. Hicks, Ohio State University, Columbus, Ohio The 1946 meeting was held in Urbana and Champaign, Ill., Sept. 2–6, 1946.

Ort Federation, American, founded in 1880 and devoted to the creation of a new occupational existence for refugees and the masses of European Jews through trade schools, farm colonies, and industrial workshops President: George Backer Chairman of the Board of Directors: Louis B Boudin. Treasurer Joseph Weinberg Chairman of the Executive Committee. Murray Levine Headquarters 212 Fifth Avenue, New York 10, New York.

Ort, Women's American, a national organization, founded in 1927, as a constituent body of the American Ort Federation, which is part of the World Ort Union (headquarters Geneva, Switzerland), whose purpose is the promotion of technical trades and agriculture among Jewry in vocational trade schools, agricultural colonies, cooperatives, and workshops. For over sixty-six years the Ort (Organization for Rehabilitation through Training) has trained the dislocated and the underprivileged for integration into the economic scheme of their native lands, or for emigration to Palestine, the Americas, etc

Membership approximately 20,000 Effective expansion has resulted in the formation of regional groups in the New York Metropolitan Area, Connecticut, New Jersey, Pennsylvania, the Midwest, and the West Coast. The quota for the Guardianship Vocational Training Plan, which was launched in 1945, has doubled President: Mrs Maurice Finkelstein. Headquarters 212 Fifth Avenue, New York 10, New York Events of 1946–47 include the Convention, May 13–15, 1946, at the Hotel Biltmore, Annual Donor Luncheon at the Hotel Commodore, May 15, 1946, Exhibit at Women's International Exposition, 71st Armory, week of November 4, 1946, including Membership Rally on November 7; the Annual Regional Membership Luncheon at the Hotel Commodore, December 4, 1946, Luncheon Fashion Show at the Waldorf Astoria, January 20, 1947, and the Annual Donor Luncheon at the Hotel Commodore, May 7, 1947, all in New York City Chapter meetings are held monthly in the fifty five chapters, in cities throughout the United States

Pacific Relations, Institute of, an unofficial and nonpartisan organization, founded in 1925 to facilitate the scientific study of the peoples of the Pacific area. Composed of autonomous, privately supported National Councils in Australia, New Zealand, China, Philippines, Canada, United States, France, Netherlands, United Kingdom, and the U S S R, together with an International Secretariat. Governed by a Pacific Council composed of members appointed by each of the National Councils Chairman Percy E. Corbett, Yale University Secretary General William L Holland It has held international conferences at Honolulu (1925 and 1927), Kyoto, Japan (1929), Shanghai (1931), Banff, Canada (1933), Yosemite Park, California (1936), Hot Springs, Virginia (1945). Tenth Conference is scheduled to meet in England, September, 1947 Publications numerous scholarly books in the IPR *Inquiry Series* and *International Research Series*, conference proceedings, *Pacific Affairs*, quarterly, pamphlets International Secretariat and Publications Office: 1 East 54th Street, New York 22, New York

American Council, Institute of Pacific Relations, Inc. Chairman Robert G. Sproul, Executive Vice Chairman Edward C Carter Membership. 2,000 Publications *Far Eastern Survey*, fortnightly, numerous popular pamphlets, school texts, and scholarly books National office 1 East 54th Street, New York 22, New York, branch offices 417 Market Street, San Francisco 5, California, and Dillingham Building Annex, Honolulu 16, Hawaii

Pan American Foundation, founded in 1938 to promote and maintain, through nongovernmental means and agencies, the principles and policies of Pan Americanism. The foundation promotes the founding of a Pan American University, cooperates with inter-American organizations, and publishes Pan American booklets, pamphlets, and bibliographies Director A Curtis Wilgus Secretary: William A Reid Headquarters 1217 Thirteenth Street, N W, Washington 5, D C.

Pan American Women's Association, founded in 1930 to promote inter-American understanding through cultural interchange President Frances R Grant. Secretary. Jessie B Adamson. Headquarters. 45 West 45 Street, New York 19, New York During 1945 the Association held its panel luncheons on the third Saturday of each month and continued its concerts, exhibitions, and special institutes on inter-American problems

Peace Conference, National, founded in 1933 with a three-fold purpose as a council board, as a clearing house, as a publishing and service agency to provide nonpartisan information on international affairs Membership. 37 national organizations President Richard R. Wood; Vice-President. Jane Evans, Executive Secretary. Marian R. Emerine. Headquarters 8 West 40 Street, New York 18, New York The Conference holds monthly meetings of organizational leaders to discuss current problems, clarify issues, and plan programs Recent publications of the Conference include a study pamphlet: *Pros and Cons of Universal Military Training, World Trade and World Plenty* and *Complete Text of the United Nations Charter.*

P.E.N. Club, a world association of writers, founded in 1922 in the interests of literature, freedom of artistic expression, and international good will. Membership (American Center) 805 President· Carl Carmer Secretary: Whit Burnett. Headquarters· 123 East 94th Street, New York 28, New York The International Federation of the P E.N. Clubs is headed by a Presidential Board, consisting of Thornton Wilder, Dr. Hu Shih, Denis Saurat, E M Forster, Francois Mauriac, Ignazio Silone, and Hermon Ould

Pen Women, National League of America, founded in 1897 to promote the creative, cultural arts of Pen, Pencil, and Brush. Membership 3,652 Headquarters· 408 Willard Hotel, Washington, D C President Alma Robison Highee The League holds a Biennial Congress on numerically even years, a Mid-administration Congress on numerically odd years; also, a Membership Roster biennially. The League publishes a monthly magazine, *The Pen Woman*. Editor Mrs. Hildred Bridges (William L.), 7634 Summit Street, Kansas City 5, Missouri

People's Lobby, Inc., The, founded in 1931 (formerly the People's Reconstruction League, founded in 1920) to work for legislative and administrative measures in the interest of all the people. Membership 4,250. President: Bishop Francis J McConnell. Executive Secretary Benjamin Marsh. Headquarters 810 F Street, N W, Washington 4, D.C During 1946 the organization distributed about a quarter of a million reprints of its material It worked for government retention of its war plants to be converted to peace production It held a conference and published all addresses as pamphlets

Petroleum Institute, American, founded in 1919 to afford a means of cooperation with the government, foster trade in petroleum products, promote the interests of the industry, the mutual improvement of its members, and the study of related arts and sciences Membership about 4,000 President W R Boyd, Jr Secretary Lacey Walker Headquarters: 50 West 50 Street, New York 20, New York.

Phi Beta Kappa, United Chapters of, founded December 5, 1776, "to recognize and encourage scholarship, friendship, and cultural interest" The constituent members are the chapters and the associations of the Society There are 141 chapters and, in 1944–45, there were approximately fifty associations President Christian Sauss Vice President John Kirkland Clark Executive Secretary. George A Works Treasurer George Dana Graves Assistant Secretary Carl L Bullman Assistant Treasurer· Levia P. Kwerel Headquarters 5 East 44th Street, New York 17, New York During 1946, the Mary Isabel Sibley Fellowship in Greek was held by Helen F North The awards of the Phi Beta Kappa Key are made by the chapters. Meetings of the United Chapters are held triennially The last one took place at Williamsburg, Virginia, early in September, 1946

Philatelic Society, American, an organization of stamp collectors, the oldest and largest hobby organization in the world, founded in 1886 Membership 8,150 President: Donald F Lybarger Executive Secretary· H Clay Musser. Central Office, P O Box 800, State College, Pennsylvania. The annual meeting is usually held in August of each year

Philological Association, American, founded in 1869 for the advancement and diffusion of philological knowledge, incorporated, 1937 Membership 1,021 President L Arnold Post Secretary Howard Comfort, Haverford College, Haverford, Pennsylvania. Publications *Transactions and Proceedings* (annual since 1870), *Philological Monographs* and *Special Publications*, thirteen volumes since 1931. Individual and institutional membership, $4 annually.

Philosophical Association, American, founded in 1900 for the purpose of fostering the coordinated study and dissemination of philosophy in all its branches. It also establishes and maintains contacts with philosophers and philosophical associations the world over, having participated in a number of international philosophical congresses Membership 900. Divisions Eastern, Western, and Pacific Endowment $10,000 revolving fund received from the Carnegie Corporation for the purpose of publishing source books in the history of science Chairman Everett J Nelson, University of Washington, Seattle, Washington Secretary Treasurer: Cornelius Kruse Headquarters. Wesleyan University, Middletown, Connecticut

Physical Society, American, founded in 1899 for the advancement and diffusion of knowledge of physics Membership 6,000 President-elect Dr L A. DuBridge. Secretary Dr. K K Darrow Headquarters: Columbia University, New York 27, New York. The annual meeting was in January, 1946, and four other meetings were held during the year.

Physicians, American College of, founded in 1915 as an organization of qualified specialists in Internal Medicine and allied specialties. to maintain and advance the highest possible standards in medical education, medical practice, and clinical research; to perpetuate the history and best traditions of medicine and medical ethics; and to maintain both the dignity and efficiency of Internal

Medicine in its relation to public welfare. Membership: four Masters; four thousand six hundred Fellows; twelve hundred Associates; total: (approximately), five thousand eight hundred. President: David P. Barr, M.D., New York, New York; President-Elect: Hugh J. Morgan, M.D, Nashville, Tennessee, Executive Secretary: E R. Loveland. Headquarters· 4200 Pine Street, Philadelphia 4, Pennsylvania. Following the conclusion of war, the College resumed its national meetings at Philadelphia with an attendance far in excess of any prewar meeting. The College has extended its program of granting Research and Clinical Fellowships, the latter especially designed to help its returning member-veterans Also it has continued to expand its program of postgraduate and refresher courses, organized at important medical centers in various parts of the country. Other activities include investigation and certification of internists, publication of the *Annals of Internal Medicine*, holding of Regional Meetings, award of the Phillips Memorial Medal for Achievement in Internal Medicine, etc.

Planned Parenthood Federation of America, Inc. (formerly Birth Control Federation of America, Inc), formed in 1939, by the merger of the American Birth Control League (1921), and the Birth Control Clinical Research Bureau (1923), to foster Planned Parenthood by making birth control information available, under medical direction, through private physicians, hospital and public health clinics, and extra-mural clinics. Special emphasis is being given to medical service for returning members of the armed forces and their wives Couples desiring advice on infertility are referred to physicians and clinics specializing in such service Honorary Chairman Margaret Sanger. President The Reverend Cornelius P Trowbridge. National Director D. Kenneth Rose. Secretary. Mrs. Walter N. Rothschild. Headquarters; 501 Madison Avenue, New York 22, New York. For activities in 1946, see BIRTH CONTROL

Planning and Civic Association, American, formed in 1935 by a merger of the American Civic Association (1904) and the National Conference on City Planning (1909). It promotes public understanding and support of planning for the best use of land, water, and other natural resources, higher ideals of civic life, and safeguarding of natural wonders, scenic possessions, and recreation facilities Membership and Subscriptions· 2,000 President: Horace M. Albright Executive Secretary Harlean James. Headquarters 901 Union Trust Building, Washington 5, D C The Association publishes a yearbook, *American Planning and Civic Annual*, and the quarterly, *Planning and Civic Comment* Holds annually a Citizens Planning Conference, the 1946 Conference was held in Dallas, Texas

Play Schools Association, Inc., founded in 1917, is a nonprofit organization concerned with work-play programs for children of school age, after school in winter and all day in summer The Association conducts some centers in New York City, using existing facilities and resources, and acts as consultant to private and public agencies carrying on play school activities Nationally, it helps other groups through printed materials and field work service Conferences, workshops, and discussion meetings are held, and publications issued, for teachers, students, and parents interested in programs out of school, for children The work is supported by foundations and public spirited citizens. Membership· 2,500 President: Mrs. Fred M Stein Vice Presidents Mrs Thomas J. Blake, Mrs. Walter A. Hirsch, and Mrs. David M Levy. Secretary· Mrs. Harry E Maule Treasurer: Mrs. I Edwin Goldwasser. Assistant Treasurer. Mrs. Saul Neuman. Chairman, Executive Committee Mrs I H Levy Headquarters 119 West 57th Street, New York 19, New York During 1947, the Annual Conference will be held, March 29, at the Hotel Pennsylvania, New York, New York

Poetry Society of America, The, was incorporated in 1910 "The purpose of the society is to secure fuller recognition for poetry as one of the important forces making for a higher civilization and to kindle a fuller and more intelligent appreciation of poetry; and especially of the work of living American poets; and to do such other acts as may be deemed necessary, or appropriate, to encourage and foster American poetry; and aid and assist American poets" Membership: about 500. President: J. Donald Adams Vice Presidents William Rose Benét, Sara Henderson Hay, and Margaret Widdemer Secretary· Harold Vinal Members of the Board Laura Benét, Amy Bonner, Gustav Davidson, Elias Lieberman, Emma Mills, Louise Townsend Nicholl, Sydney King Russell, A. M. Sullivan, and Helen Frith Stickney. Headquarters: address of the Secretary, Harold Vinal, 687 Lexington Avenue, New York 22, New York During 1946, the Annual First Prize $100 Award went to Elda Tanasso, and the Annual Second Prize $50 Award to Mary Sinton Leitch. The Lola Ridge Awards of $100 and $50 were presented to Jules Alan Wein and Sidney Shanker, respectively. Meetings are held from October to May, of each year, on the last Thursday evening of each month, 8:30 p.m., at 122 East 58th Street, New York 22, New York.

Poets, Inc., The Academy of American, was founded in November, 1934, to encourage and foster the work of American poets of proven gifts and merit; and to discover new poetic genius in America. Membership: 12 voting members of the Corporation and 800 founders (all donors). President· Marie Bullock. Treasurer: Charles Hanson Towne Secretary Hugh Bullock Headquarters· 1030 Fifth Avenue, New York 28, New York Election of first Board of Chancellors for 1946, consisting of J Donald Adams, William Rose Benét, Witter Bynner, Dr Henry Seidel Canby, Mary Colum, Max Eastman, Dr. Frank P. Graham, Robert M. Hutchins, Robinson Jeffers, Archibald MacLeish, F. O Matthiessen, Dr. William Allen Neilson (see NECROLOGY). Fellowship of $5,000 was awarded, in April, 1946, to Edgar Lee Masters The Annual Meeting of Members of the Corporation was held at the Corporation's headquarters on October 16, 1946.

Polish Institute of Arts and Sciences in America, founded in 1942 to establish permanent collaboration between Polish and American scholars, and to assure for the duration of the war the continuity of Polish research work. Membership: 89 active members; 54 corresponding members President of the Board· Hon. Jan Kucharzewski. Director of the Institute Prof. Oskar Halecki. Headquarters· 39 East 35 Street, New York 16, New York. Publications *Bulletin*, published quarterly· *Polish Institute Series*. In 1944 the Midwest Branch was organized, with headquarters in Chicago where a first conference was held in 1942 and a second one in Poland cultural reconstruction in 1945 The institute has also a Canadian Branch (headquarters at McGill University, Montreal), has appointed delegates in several Latin American countries and cooperates with Polish research centers of all continents. Each of the five sections of the Institute (historical and political sciences, history of literature and of arts, law and social and economic sciences, pure and applied sciences, and educational problems) is organizing lectures of Polish and American scholars to be held at the headquarters of the Institute at least once a month Special conferences on the history of East Central Europe, and on the role of the universities in the postwar world were organized in 1943, and a conference on the reconstruction of libraries in 1944 There also were conferences on the nutritional reconstruction of Poland, and on the history of the Polish immigration in the U S A which led in October, 1944, to the foundation of the Polish-American Historical Commission, with a special publication. *Polish-American Studies*

Polish National Alliance of the U S. of N.A., a fraternal society founded in 1880. Membership 300,000 President· Charles Rozmarek General Secretary. A S Szczerbowski Headquarters. 1514–20 W Division Street, Chicago 22, Illinois A convention is held once every four years, and the subsidiary lodges (about 2,000) meet monthly.

Political and Social Science, The American Academy of, founded in 1889 to provide a forum for the discussion of the great political, social, and industrial problems confronting the world Membership· 12,000. President Dr Ernest Minor Patterson Secretary Dr J. P Lichtenberger. Headquarters· 3457 Walnut Street, Philadelphia 4, Pennsylvania A bi-monthly, *The Annals*, is published. The 1947 annual meeting is scheduled for Philadelphia, April 18–19

Political Science Association, American, founded in 1903 to foster scholarly interest in the scientific study and improvement of politics and public law, administration, and diplomacy. Membership· 3,900 President Walter E Nodd Secretary: Kenneth Colegrove Headquarters· 1822 Sheridan Road, Northwestern University, Evanston, Illinois The Association maintains a Personnel Service indicating the records of young scholars available for appointment The 1946 annual meeting was held in Cleveland, Ohio, on December 27–29

Postmasters of the U S., National Association of, founded in 1898 as a purely social organization of 1st and 2nd class office postmasters, and re-organized and incorporated, in 1935, to promote the interests of the U S postal service and advance its high standard of efficiency and economical operation in the interests of the public, and to enhance the welfare of its members Membership 32,000 President Joseph F Conrad 1st Vice President Burris C. Jackson 2nd Vice President Elof T. Hedlund. 3rd Vice President Darius Allen. 4th Vice President Pearl E. Linville Secretary Treasurer: Frank J Horak. Editor and Washington Representative: Philip J. Gallagher National headquarters: Oconto, Wisconsin. During 1946, the Association obtained the first adjustment of pay schedules in 25 years; promoted air mail for popular use, through a campaign of education among the public; promoted an educational campaign through the public schools on postal service; and created schools of instruction (by counties) for postmasters to develop a better understanding of the multifarious duties and thousands of postal regulations, and to assist postmasters in becoming more efficient in serving the public The 1947 meeting is to be held in Los Angeles, California.

Press Club of America, Overseas, was founded in April, 1939, to bring interesting ties of foreign correspondents

to the fore; to provide facilities for the expression of these interests; to promote freedom for foreign correspondents as well as freedom of the press; to encourage the highest ethics in the field; and to promote good fellowship among men and women whose past or present experiences in the service of American journalism abroad have given them common professional and social interests. Membership: 435 President W. W. Chaplin. Vice Presidents: H V. Kaltenborn, William Shirer, and Sonia Tomara Secretary. Haster E Hensell. Treasurer: Ralph J Frantz. Headquarters: 110 West 57th Street, New York 19, New York. At the Annual Banquet, February 28, 1946, Secretary of State Byrnes, Secretary of War Patterson, Senator Brian McMahon, and Field Marshall Sir Henry Maitland Wilson were among the speakers, and awards (civilian jeeps) were given to Drew Middleton, of the New York Times, for having filed the first story out of liberated Berlin, and to Frank Bartholomew of INS, for having filed the first story from liberated Tokyo The Club meets every Wednesday, at 12:30 p m , at the Lotos Club, 110 West 57th Street, New York 19, New York.

Prevention of Blindness, Inc., National Society for the, founded in 1915, concerned with the control and, where possible, the elimination of the causes of blindness, impaired vision, and eyestrain, not with activities on behalf of those already blind Members and Donors 38,000. President Mason H Bigelow Executive Director Mrs. Eleanor Brown Merrill Secretary: Miss Regina E. Schneider Headquarters. 1700 Broadway, New York 19, New York

Prevention of Cruelty to Animals, The American Society for the (A S.P.C A), founded in 1866 President· Alexander S Webb. Vice-President-Secretary· Richard Welling Executive Vice-President Sydney H Coleman Headquarters 50 Madison Avenue, New York 10, New York The Society maintains a shelter in each borough of New York City, in which it housed 211,955 during 1945. Its animal hospital at Avenue A and 24 Street, Manhattan, treats over 10,000 cases a year. An educational program is developed for the schools and for adults The annual meeting was held January 3, 1946

Prison Association, American, founded in 1870 to improve laws, law enforcement, and penal and correctional institutions, to study the causes of crime, and to care for and provide employment for paroled and discharged prisoners and probationers The Association maintains a free clearinghouse of information Membership 1,000 General Secretary. E R Cass Headquarters 135 East 15 Street, New York 3, New York The Annual Congress may be attended by anyone who wishes to profit thereby

Protection of Foreign Born, American Committee for, founded in 1933 to promote better relations between native and foreign born by education, to combat discrimination on the ground of race, nationality, or noncitizenship; to encourage and facilitate naturalization; and to prevent the destruction of American families by deportation It is not a membership organization, but has 400 annual contributors Chairman Hon Stanley Nowak Headquarters: 23 West 26th Street, New York 10, New York

Psychiatric Association, American, founded in 1844 to further the study of mental diseases, to further psychiatric hospitals, education, and research, and to apply psychiatric knowledge to other branches of medicine, to other associations and to public welfare. Membership 4,009 President Dr. Samuel W Hamilton Executive Assistant: Austin M Davies. Headquarters 9 Rockefeller Plaza, New York 20, New York The 1947 meeting is scheduled for New York City, May 19–23 See PSYCHIATRY

Psychical Research, Inc., American Society for, incorporated in 1904 for the scientific investigation of all types of psychical phenomena. Membership 500 President Dr. George H Hyslop. Secretary Mrs E W Allison Headquarters 40 East 34 Street, New York 16, New York.

Public Administration, Institute of, founded in 1906 as The Bureau of Municipal Research. The Institute's purpose is to improve the management and operation of American government through the scientific study of public administration, the development of practical ideas and improved procedures in government administration, dissemination of the results of such research to public officials and to citizens generally, and the advancement of training for the public service Membership· 12 Chairman. Richard S Childs. President Luther Gulick Headquarters: 684 Park Avenue, New York 21, New York.

Public Affairs Committee, Inc., founded in 1936 to make available in summary and inexpensive form the results of research on economic and social problems to aid in the understanding and development of American policy. Chairman. Ordway Tead Secretary S M Keeny. Headquarters. 22 East 38 Street, New York 16, New York In their tenth million, there are more than 64 current *Public Affairs Pamphlet* titles

Public Health Association, American, founded in 1872 to promote and protect public and personal health Membership· 10,500. President. Harry S Mustard Executive Secretary. Dr. Reginald M. Atwater Headquarters· 1790 Broadway, New York 19, New York. The year 1946 saw a great expansion of the Association's activities. Its administrative staff has been increased by the addition of an engineering associate. Its vocational counseling and placement service now has the full time services of a medical vocational consultant. During the year it granted the first Lasker Awards in recognition of research in relation to the diseases which are the leading causes of death, and in recognition of administrative achievement in the prevention and treatment of these diseases. The growing activities of the Association's Merit System project have resulted in the addition to the staff of a statistical analyst and a field consultant. In the accreditation program ten schools of public health have been approved for granting the degree of M P H and five, the Dr. P H The Committee on Administrative Practice has established a Washington office for its Medical Care Subcommittee with a medical associate, technical secretary, and research associate. Its Subcommittee on Local Health Units was one of the cooperating agencies sponsoring the first National Conference on Local Health Units held in Ann Arbor in September. During the year the Association published a membership directory, its first since 1937, *Public Health—A Career with a Future*, Part II of an *Appraisal Method for Measuring the Quality of Housing*, and the 9th edition of *Standard Methods for the Examination of Water and Sewage*. Its Committee on Professional Education released reports on recommended qualifications of Health Officers, Executives of Voluntary Health Agencies, and Nutritionists The official publication of the American Public Health Association is the *American Journal of Public Health*, now in its 36th Volume and with a circulation of more than 13,000

Publishers Association, Inc., National, founded in 1919 to serve the industry on problems common to all classes of publications looking after their interests in connection with postage rates, transportation, copyright matters, paper supply, etc Membership 330 President Walter D Fuller Vice Presidents Albert E. Winger and Howard Ehrlich. Secretary· Francis L. Wurzburg Treasurer. Arthur S Moore Executive Vice-President Arch Crawford Headquarters 232 Madison Avenue, New York 16, New York The Annual Meeting for 1946 was held at Montauk Manor, Montauk, Long Island, New York, September 9–11 During 1947, there will be a summer meeting in June, and annual Convention in September

Radio Relay League, Inc., American, a non-commercial association of radio amateurs, founded in May, 1914, and bonded for the promotion of interest in amateur radio communication and experimentation Membership. 51,000. President George W. Bailey Headquarters West Hartford 7, Connecticut Official Organ *QST*. Publishers of the *Radio Amateur's Handbook* and other radio training aids Activities of the League in 1946 included many projects indicating a return to peacetime normalcy. the sponsoring of radio operating contests to improve amateur skills, the holding of "hamfests" and conventions of amateurs, the Code Proficiency program to advance the radio code receiving speed of amateurs; a rigorous technical program to adapt war born radio techniques to amateur communication practice gained much ground, and a "training aids" program instituted to assist local affiliated clubs in planning technical meetings

Railroads, Association of American, founded in 1934, to deal with matters of common concern in railway operations, maintenance, engineering, research, traffic, accounting, finance, valuation, taxation, law, legislation, transportation economics, and public relations Membership 193 railroads in United States, 5 in Canada, 6 in Mexico, and 173 associate members President J J. Pelley; Secretary-Treasurer, H J Forster, Headquarters, Transportation Building, Washington 6, D.C. See RAILWAYS.

Recreation Association, National, founded in 1906 with the following objectives That every child in America shall have a chance to play, that everybody in America, young or old, shall have an opportunity to find the best and most satisfying use of leisure time. Membership: 11,000. President Howard Braucher Headquarters: 315 Fourth Avenue, New York 10, New York

Relief for Holland, Inc., American, formerly Queen Wilhelmina Fund, Inc., founded in May, 1940 to provide relief for the people of and refugees from The Netherlands and The Netherlands East Indies A member agency of the National War Fund. Over 200 chapters across the country collect food, used clothing, household equipment, and other needed supplies for shipment to Holland and the East Indies Sewing and knitting chapters also make new garments from materials purchased with monies provided by the National War Fund Purchases of emergency food supplies also are made and shipped abroad During first nine months operation following liberation of the southern portion of Holland over 7,982,000 lb of food, clothing, and other badly needed materials were sent through national headquarters in New York, followed by 6,248,000 lb. during the first eight months of 1946. Headquarters, Public Relations Office: 55 Broadway, New York 6, New York.

Relief for Norway, Inc., American, an American corpora-

tion, founded on April 19, 1940, and directed by Americans for the sole purpose of alleviating distress in Norway. President: Dr. J. A. Aasgaard. Headquarters. 135 South La Salle Street, Chicago 3, Illinois. Member of National War Fund, Inc American Relief for Norway has collected $3,343,750 from the date of its founding. Gifts-in-kind amounted to $3,464,550, in addition. The Corporation terminated its relief activities at the end of 1946.

Religious Education, International Council of, founded in 1922 to promote Sunday School work, to encourage the study of the Bible, and to assist in the spread of the Christian religion Membership. 40 Protestant denominations, 31 state councils of churches and religious education, and 142 city and Provincial councils. President: Harold E. Stassen. General Secretary. Roy G. Ross. Headquarters. 203 N. Wabash Ave., Chicago 1, Illinois. The annual meeting is scheduled for February 5–10, 1947, at Grand Rapids, Michigan.

Rescue and Relief Committee, Inc. International, founded in 1933, for the rescue and relief of anti-fascist refugees of all nationalities in Europe It is nonsectarian and provides food, clothes, cash allotments, and medical care, special emphasis on resettlement and rehabilitation programs. Projects include clinics, canteens, children's rest homes, and recuperation centers Membership, approximately 15,000. Chairman. L. Hollingsworth Wood. Executive Secretary. Sheba Strunsky. Headquarters. 103 Park Avenue, New York 17, New York. Warehouse: 130 Orchard Street, New York 2, New York. Offices in Stockholm, Amsterdam, Brussels, Paris, Geneva, Rome, Istanbul, Mexico City; representatives in several cities, and displaced persons' camps in Germany

Research Council, National, founded in 1916 to "promote research in the mathematical, physical, and biological sciences, and in the application of these sciences to engineering, agriculture, medicine, and other useful arts, with the object of increasing knowledge, of strengthening the national defense, and of contributing in other ways to the public welfare" Membership about 220, composed in majority of representatives of 85 scientific and technical societies; in addition to about 1,800 members of committees of the Council and its Divisions. Chairman. Detlev W. Bronk. Acting Executive Secretary. George D Mead. Headquarters 2101 Constitution Avenue, Washington 25, D.C The Council conducts a wide range of research activities in the medical and natural sciences under the sponsorship or supervision of specially appointed committees Series of post-doctorate fellowships are administered in the medical and in the natural sciences A number of publications resulting from work of the Council's Committees are issued each year, either commercially or in the *Bulletin* or *Reprint and Circular Series* of the Council. As an operating agency of the National Academy of Sciences, the Council is called upon frequently by agencies of the Government for advice and assistance in connection with many problems of research. See PHYSICS.

Research Council of Canada, National, founded in 1916 to have charge of all matters affecting scientific and industrial research in Canada, which may be assigned to it by the Committee of the Privy Council on Scientific and Industrial Research Membership 15. President C J. Mackenzie Secretary S P Eagleson. Headquarters. National Research Building, Ottawa, Canada In September 1946 the Council's staff of 1450, including those employed in several laboratory units operated outside of Ottawa, was grouped in laboratory divisions of applied biology, chemistry, mechanical engineering, physics and electrical engineering, atomic energy, and medical research, a section on research plans and publications and a scientific library and technical information service. Restoration of peace has required orientation of research towards reconstruction and the application of new knowledge to civilian industrial enterprise Outside activities in 1946–47 included a research program of 132 projects under the direction of committees, including medical research in various hospital centers, the granting of one hundred forty-one scholarships for postgraduate research and the awarding of sixty-one grants in aid to responsible workers for special investigations.

Reserve Officers Association of the U.S. was founded in 1922 to support and assist in the development and execution of a military policy for the United States which will provide adequate national security. Membership 112,000. President Brig Gen. Donald B. Adams. Senior Vice President Col. Floyd E. Lindley. Vice Presidents Lt. Col. Chad Dunstan, Capt. Richard Wright, and Lt. Robert H Winnerman Headquarters: 1726 Pennsylvania Avenue, N W, Washington 6, D C The National Convention will be held in Miami, Florida, June 20–24, 1947.

Review of Motion Pictures, Inc., National Board of, an organization founded in 1909 to encourage the best uses of the motion picture recreationally, educationally, and artistically Membership 500 President: Quincey Howe. Executive Director Richard Griffith. Headquarters: 70 Fifth Avenue, New York 11, New York.

Rotary International, the worldwide organization of all Rotary Clubs, is responsible for the administrative supervision of its member Clubs and for the propagation of the Objects of Rotary throughout the world. A Rotary Club is a group of representative men, one from each business or profession in a community, who meet together in fellowship to further the "Ideal of Service," which is thoughtfulness of and helpfulness to others in business and community life There are now 5,891 Rotary Clubs in 78 countries and geographical regions, with a membership of nearly 300,000 Rotarians President: Richard C. Hedke, Detroit, Michigan. General Secretary: Philip Lovejoy, Chicago, Illinois Headquarters. 35 East Wacker Drive, Chicago 1, Illinois, with additional offices in Bombay, India, London, England; and Zurich, Switzerland. The official Rotary magazine is *The Rotarian* which, with its Spanish edition, *Revista Rotaria*, has a circulation of nearly 300,000 There are also numerous regional Rotary magazines published throughout the world in several different languages. During 1946, Rotary activities included; general community-betterment undertakings; work for crippled children and under-privileged children; the establishment and supervision of camps and clubs for boys and girls, assistance to students through scholarships and student loan funds, the promotion of high standards in businesses and professions, and the development of international good will and understanding To assist in developing an informed public opinion on vital problems confronting the world, Rotary International provided Rotary Clubs everywhere with background information on the United Nations organization and its specialized agencies. Emphasizing the importance of the United Nations Educational, Scientific, and Cultural Organization, Rotary International published a comprehensive sixty-six page booklet, *In the Minds of Men*, which contains a complete text of the UNESCO Constitution, together with comments and challenging questions, for the assistance of Rotary Clubs in preparing programs on this subject The month of November, 1946, was designated as "UNESCO Month" in Rotary, and Rotary Clubs throughout the world devoted their programs during the month to that important agency of the United Nations To assist Rotarians everywhere in implementing the objectives of the United Nations, Rotary International has had observers at meetings of the General Assembly in London and New York, the Food Conference in London, Washington, and Copenhagen, the UNRRA Conference in Atlantic City; UNESCO in London and Paris, the Security Council in New York, the Economic and Social Council in New York, the World Health Conference in New York, and the International Labor Organization Conference in Montreal. The Thirty-Seventh Annual Convention of Rotary International was held in Atlantic City, New Jersey, June 2–6, 1946, with an attendance of 11,287 from forty-six countries During 1946, Rotary Clubs were reorganized in the following countries and regions formerly occupied by the Axis powers Belgium, Burma, China, Czechoslovakia, Federated Malay States, France, Greece, Hong Kong, Luxembourg, The Netherlands, Norway; The Philippines, and The Straits Settlements

Royal Institution of Great Britain, founded in 1799 for the promotion, diffusion, and extension of science and useful knowledge. Membership about 900 President The Right Hon Lord Rayleigh, F R S. Secretary A O Rankine, F.R S Headquarters. 21 Albemarle Street, London, W. 1., England.

Russian Relief, Inc, American Society for, formerly Russian War Relief, Inc., founded in September, 1941, to furnish relief aid to the Soviet people, collects and ships medical supplies, clothing, food, household items and crop seeds to the U.S S R. Membership 49 Board of Directors President. Edward C. Carter Honorary Chairman· Allen Wardwell. Secretary William W. Lancaster. Headquarters: 5 Cedar Street (P.O. Box 135, Wall Street Station), New York 5, New York The American Society for Russian Relief, Inc., functions under the Advisory Committee on Voluntary Foreign Aid.

Safety Council, National, founded in 1913 to bring about understanding of the steps necessary to prevent accidents of all kinds and to furnish its members with printed material and information for use in conducting accident prevention work. Membership 7,576, mainly companies and associations. President· Ned H Dearborn Headquarters: 20 North Wacker Drive, Chicago 6, Illinois. Regional Offices Central, 20 North Wacker Drive, Chicago 6, Illinois. Eastern Offices: 800 Chrysler Building, New York 17, New York. Western Offices: 111 Sutter Street, San Francisco 4, California. On September 8, 1945, President Truman called upon the National Safety Council to mobilize safety forces of the nation for a postwar safety campaign against accidents of all kinds. To cooperate in this campaign, the Council has called together national associations and has intensified its own activities in traffic and industrial safety Special publications, films, and posters were produced, and special studies made on several aspects of traffic and industrial safety, as they are affected by, and as they affect the postwar period. The Council published eight magazines and hundreds of studies on accident prevention methods. It distributed over thirteen million safety posters in 1945 for use in industry, in schools, and public places It conducted many national

safety contests among various groups and issued hundreds of awards. The 1945 National Safety Congress was cancelled due to wartime meeting and travel restrictions. The Congress, normally conducted in October, attracts more than 10,000 delegates who are representative of every phase of the safety movement in all parts of the country. See ACCIDENTS

Save the Children Federation, Inc., founded in 1932 as an organization for rural community child service in America and cooperation overseas with the International Union for Child Welfare and affiliates Chairman. Guy Emory Shipler President and Executive Director· John R. Voris Vice Presidents William N Haskell, H Claude Hardy. Vice Chairman Howard E. Kershner Treasurer· John Q Tilson. Secretary. George W. Briggs. During 1946, domestic activities were centered in disadvantaged rural areas, operating through one hundred county committees to aid especially the children of nine hundred rural "sponsored schools" The overseas program in 1946 included a "school sponsorship" plan in France, Belgium, Holland, and Norway, and an individual "child sponsorship" plan (for refugee children) in these countries as well as in Sweden. A "child sponsorship" plan is being instituted in Finland as the improved conditions in Norway make it possible to discontinue aid there. Other needed gifts in kind, as food and school supplies, are secured Total disbursements—cash and commodities—for the nine months ending September 30, 1946 were $1,-478,483 90

Savings and Loan League, United States, a trade organization founded in 1892 by the savings, building and loan associations and cooperative banks of the United States, whose assets total $9,500,000,000 and whose chief business is the accumulating of savings and the lending of these funds to finance home ownership Membership 3,640 associations and 47 affiliated State Leagues President Walter W McAllister Executive Vice President. Morton Bodfish Headquarters 221 North LaSalle Street, Chicago 1, Illinois The organization instructed its members in the procedure for making veterans home loans under the Servicemen's Readjustment Act as revised at the close of 1945, and by a campaign of encouragement and inspiration was instrumental in the extension of $1,000,-000,000 of home owner credit to veterans in 1946. Through its educational division, it effected the publication of a comprehensive textbook on *Real Estate Law* The League instituted a quarterly statistical report on the veterans' loans made by member institutions and collaborated with the American Legion in developing improvements in the machinery for this specialized type of home lending. The League published the sixteenth of its series of year books, *Savings and Loan Annals*, 1945.

Sculpture Society, National, organized in 1893 to advance the knowledge and appreciation of good sculpture and to encourage its creation The National Sculpture Society cooperates with organizations or communities in planning competitions for projects comprising sculpture A trust fund which provides loans for sculptors in need is administered The membership consists of Fellows, Members, Allied Professional Members, Lay Members and Honorary Fellows Membership about 300 President Donald DeLue Secretary Carl L Schmitz Educational Director John J Cunningham Headquarters 1083 Fifth Avenue, New York 28, New York Several prizes are available for award in competitions and exhibitions. Awards in 1946 follow The winner of the $1,000 prize in the competition for the Herbert Adams Memorial Medal was Thomas LoMedico Winners for the "Mrs Louis Bennett Prize" were Donald DeLue and Thomas LoMedico (each received $50) Winner of the Lindsey Morris $150 prize in the competition for Bas-Relief was Albert W Wein During the year the Society circulated several exhibitions of Enlarged Photographs of Ecclesiastical Sculpture Applications for exhibitions of enlarged photographs, approximately 24" x 30", of "American Patriots in Sculpture," Ecclesiastical Sculpture, Garden Sculpture and General Sculpture, will be acted upon in order of their receipt Smaller size photographs of "American Patriots" and of Ecclesiastical Sculpture are available for informative study for specific needs

Seeing Eye, Inc, The, a philanthropic association founded in 1929 for the purpose of supplying blind persons with dogs trained to act as guides, training and teaching instructors in the science and technique of educating dogs as guides, and educating and training blind persons in the proper use and handling of these dogs The association trains 150 students annually 1,300 Seeing Eye dogs have now been placed with blind men and women who came to the school to learn to use them President Henry A Colgate Headquarters Morristown, New Jersey New York Office 9 Rockefeller Plaza, New York 20, New York The Seeing Eye, Inc, is supported by annual memberships and contributions The maximum cost to a civilian blind person is $150, although the actual cost to The Seeing Eye is many times that amount Seeing Eye dogs are now supplied without cost to eligible members of the armed forces who have lost their sight in the line of duty

Small Business Men's Association, Inc., National, founded November, 1937, as a nonpartisan, nonprofit organization to give small business men an effective voice in national affairs, to protect and advance the American system of free, private enterprise under the Constitution, and to promote the general welfare by collecting and distributing information and data affecting the financial, commercial, civic, and industrial interests of its members and the nation. President. DeWitt Emery. Secretary James S. Westbrook. Headquarters. 163 North Union Street, Akron 4, Ohio. Executive Office. 39 South LaSalle Street, Chicago 3, Illinois. Research Office: 1028 Connecticut Avenue, N.W., Washington 6, D.C

Social Hygiene Association, American, formed in 1914 to combat syphilis and gonorrhea, to fight prostitution and other unwholesome conditions, to promote sound sex education and training for marriage and parenthood, and to protect and improve the American family as the basic social institution. As a participating service of the National War Fund, the Association's major resources were devoted during the war to helping maintain the lowest possible venereal disease rates, to protecting industrial workers and members of the armed forces from prostitution and related conditions, and to mitigating the deleterious effects of war on young people. Membership. 150 organizations, approximately 18,000 individuals President. Dr. Ray Lyman Wilbur Chairman of Board of Directors: Dr William F. Snow. Executive Director: Dr. Walter Clarke. Headquarters 1790 Broadway, New York 19, New York. Services include advice and consultation; surveys, production, and distribution of literature, films, and other materials. National Social Hygiene Day sponsored annually is marked by more than 5,000 meetings throughout the country. An important part of the Association's postwar program is through its Committee on International Relations and Activities, which conducts a Liaison Office for International Social Hygiene Agencies and Activities at national headquarters The William Freeman Snow medal for distinguished service in the social hygiene field is presented to an outstanding person each year on the occasion of the Association's Annual Meeting in New York, New York

Social Science Research Council, a corporation organized in 1923 to promote the development of the social sciences. Membership 21 directors elected or appointed by seven national social science societies, 9 directors at-large elected by the board of directors, all former directors, numbering 66 in 1945, retain membership in the corporation. Chairman E W Burgess Secretary· Shepard B Clough. Treasurer Shelby M Harrison Executive Director Donald Young. Headquarters. 230 Park Avenue, New York 17, New York During 1944–45 nine committees were engaged in planning and promotion of research; 23 grants-in-aid of research and 61 fellowships were awarded

Social Sciences, National Institute of, was incorporated in January, 1899, and has been in its present form since 1912. The Corporation promotes study and research of the Social Sciences and rewards "distinguished services rendered to humanity, either by election to membership, or by bestowal of its Honor Medals, or other insignia" Membership limited to 600 (not including Honorary Members numbering to about 20). President. Clarence G Michalis Treasurer Lewis Latham Clarke Secretary Rosina Hahn Headquarters 271 Madison Avenue, New York 16, New York During 1946, the Annual Meeting was held, February 14th, at the Union Club in New York City At the Annual Dinner, held May 22, 1946, at the Waldorf-Astoria, New York City, the Gold Medal was awarded to the Hon Edward R Stettinius, Jr, Dean Virginia C. Gildersleeve, and Hon Robert Moses

Social Work, National Conference of, founded in 1873 to facilitate discussion of the problems and methods of practical human improvement, to increase the efficiency of organizations devoted to this cause, and to disseminate information. Membership 6,000 President Arlien Johnson. General Secretary Howard R Knight Headquarters 82 N High Street, Columbus 15, Ohio

Social Workers, American Association of, founded in 1921 to formulate and establish standards of personnel and of conditions under which social work is practiced, to seek to establish satisfactory conditions for the organization and administration of social services, to encourage through its membership requirements, proper and adequate basic preparation and training for social work practice, to disseminate information concerning the profession, and to conduct investigations which contribute to an understanding of social welfare needs Membership 11,200 President Paul L Benjamin. Executive Secretary Joseph P. Anderson Headquarters: 130 East 22 Street, New York 10, New York

Sociological Society, The American, founded in 1905 to encourage sociological research, discussion, teaching, and publication Membership 1,500. President Carl C Taylor Secretary Conrad Taeuber Headquarters, U S Department of Agriculture, Washington 25, D C. The Society issues the bi-monthly journal, the *American Sociological Review*

Special Libraries Association. This association was founded in 1909 as an international organization of li-

brarians and information experts, who serve manufacturing concerns, banks, corporations, law firms, newspapers, advertising and insurance agencies, transportation companies, research organizations, museums, hospitals, business branches, and other departments of public and university libraries, government bureaus, associations, and other organizations in the fields of business, medicine, the sciences, technology, social welfare and the arts. Membership approximately 4,500. President: Betty Joy Cole. Executive Secretary. Kathleen B. Stebbins. Headquarters, 31 East 10 Street, New York 3, New York. Publications: *Special Libraries*, published monthly, September to April, with bi-monthly issues from May to August, sponsored periodical, *Technical Book Review Index*, issued ten times a year, September to June. *Special Library Resources*, vol. 1, was published in 1941, vol. 2, in 1946, vols. 3–4 to be published shortly. Other recent publications are: Index to *American Petroleum Statistics, Handbook of Commercial, Financial, and Information Services, Source List of Selected Labor Statistics; Classification and Cataloging of Maps and Atlases, A List of Subject Headings for Chemistry Libraries, Directory of Microfilm Services.* Publications in preparation. Revised edition of *Union List of Scientific Periodicals in Chemistry Libraries, Special Library Manual, Manual for Newspaper Libraries; Manual for Science-Technology Libraries.* A convention is held each year, usually in June. The 1947 convention will be held June 10–13, in Chicago, Illinois.

Standards Association, American, a federation of national groups dealing with standardization which provides a national clearinghouse for the cooperative development of standards by its members and other interested groups. Membership. 96 trade associations, technical societies, consumer groups, and government departments and some 2,000 industrial concerns who hold membership directly or by group arrangement. President Henry B. Bryans. Vice President and Secretary. P. G Agnew. Headquarters. 70 East 45th Street, New York 17, New York. Since its foundation in 1918 the Association has developed eight hundred thirty-seven standards in all fields of engineering, industrial safety, industrial medicine, highway safety, and consumer goods Among these are many standards developed by technical societies and trade association and advanced to national standards by adoption of the ASA. Many emergency standards developed for war purposes currently are being reviewed for incorporation into the list of regular American Standards The purpose of ASA is to develop standards as tools for the economic and social development and the national security of the country.

State Governments, The Council of, a joint governmental agency established in 1925 by the states to serve as a clearinghouse of information for public officials and legislators, to encourage cooperation among the states and between the states and the Federal Government, and to make state government more effective President. Governor Edward Martin; Executive Director. Frank Bane. Headquarters. 1313 East 60th Street, Chicago 37, Illinois The Council has cooperated with Federal and State governments in resolving many problems of a war and postwar nature including civilian defense, rationing, transportation, finance and intergovernmental fiscal relations, crime control, juvenile delinquency, interstate trade barriers, public welfare, conservation of natural resources, postwar reconstruction and development, unemployment compensation, education, and others. The Council is also the secretariat of the Governors' Conference, the American Legislators' Association, the National Association of Attorneys General, the National Association of Secretaries of State and the National Association of State Budget Officers Membership, 48 states. See STATE LEGISLATION.

Statistical Association, American, founded in 1839 as a scientific and educational organization of persons seriously interested in the application of statistical methods to practical problems, the development of more useful methods, and the improvement of basic statistical data Membership 4,057. President Isador Lubin Secretary Lester S. Kellogg. Headquarters: 1603 K Street, N.W., Washington 6, D.C.

Statistical Institute, Inter American, founded May 12, 1940, to foster statistical development in the Western Hemisphere. Individual members. Constituent, 76; ex-officio, 28. Institutional members: Adhering governments, 17 (Argentina, Bolivia, Brazil, Canada, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guatemala, Mexico, Nicaragua, Panama, Peru, United States, Venezuela). Affiliated organizations, 6; business sponsors, 2 President of the Bureau (Executive Committee) M A. Teixeira de Freitas, Rio de Janeiro. Headquarters of Permanent Office. Washington D C. Committees as follows: 1950 Census of the Americas; agricultural statistics; current publications, demographic statistics, educational and cultural statistics, projects review; statistical education; yearbook. Principal activities are (a) quarterly journal; (b) yearbook; (c) maintenance of statistical source files and issuance of bibliographical materials; (d) maintenance of biographical information on statistical personnel in the Western Hemisphere; (e) technical program in subject matter fields. Technical work is carried on principally by statisticians loaned by their governments to the IASI for periods of one year each. The quarterly professional journal, *Estadística*, fourteen numbers of which had appeared up to September 30, 1946, is published in Mexico. Work is actively in progress for the issuance of the first edition of an inter-American statistical yearbook, early in 1947; existing national income estimates for the Latin American nations have been studied and evaluated; a survey of the methods used in the last population census of each American nation has been completed and published, and preliminary plans are in full progress for a continental population census in 1950 with minimum standards; a survey of methods used in agricultural production statistics has been made and published; an international foreign trade classification scheme has been adapted to American trade purposes. Surveys are now under way in (a) industrial production statistics, (b) statistical training methods, (c) vital statistics methods and procedures, (d) census cost analysis, (e) census mapping standards, (f) methods in educational and cultural statistics A third edition of the *Directory of Statistical Personnel in the American Nations* is now in preparation, to be available in 1947. The definitive (first) edition of a *Bibliography of Selected Statistical Sources in the American Nations* is now in preparation, to be available in 1947.

Surgeons, American College of, founded by surgeons of the United States and Canada in 1913 to advance the science, and the ethical and competent practice of surgery; to establish hospital standards, to engage in research; to aid in better instruction of doctors, to formulate standards of medicine, and to improve all adverse conditions surrounding the ill and injured wherever found. Membership: 14,000. President and Chairman of the Board of Regents: Irvin Abell. Headquarters 40 East Erie Street, Chicago 11, Illinois. Ten sectional meetings were held in 1946. The annual Clinical Congress was held in Cleveland, Ohio, December 16 to 20, 1946. Sectional meetings are scheduled in eight cities in March and April, 1947, and a Clinical Congress for September 8 to 14, 1947, in New York, New York

Swedish Historical Museum, American, established in 1926; owned and operated by the American Swedish Historical Foundation Its purpose is to perserve the history and the culture of Americans of Swedish ancestry, as well as their contributions to American life, and as such, is the outstanding repository in the United States. Its annual program includes current exhibitions, lectures, publications, including *Yearbook*, receptions to distinguished guests, and two festive occasions the Lucia celebration and the Spring Fete The Museum is also custodian of one of Philadelphia's oldest houses—"The Christina House." Headquarters. 19th Street and Pattison Avenue, Philadelphia 45, Pennsylvania President. Ormond Rambo, Jr. Vice Presidents. William L Batt, Samuel P. Wetherill, Henry Ericsson, Carl R. Chindblom, Walter G Nord. Treasurer Maurice A Hogeland. Secretary Allan Lake Rice. Corresponding Secretary: Adolph B. Benson. Curator Marshall W S Swan. Executive Secretary Elizabeth Z. Swenson Librarian: Nellie B Gibson.

Tax Association, National, founded in 1907 to promote the discussion and dissemination of educational and scientific information on tax questions Membership. 1,500. President James W. Martin. Secretary Ronald B. Welch. Headquarters. State Board of Equalization, Sacramento 14, California.

Tax Foundation, Inc., founded in 1938 to administer funds for the furtherance of science in taxation, efficiency in public administration, and economy in public finance; to collect data, make studies, conduct surveys, research projects, and demonstrations; to publish periodicals and issue other literature, and to further public understanding germane to these premises. President John W. Hanes Executive Director Charles C Bauer Headquarters Room 1420, 30 Rockefeller Plaza, New York 20, New York.

Tax Institute, Inc., founded in December, 1932, to serve as a national citizen's bureau of tax information. Membership: 1,100. President. James W. Martin. Executive Director: Mabel L Walker. Headquarters: 150 Nassau Street, New York 7, New York. A two day symposium on Corporate Income Taxation was held in New York City on December 6–7, 1946.

Testing Materials, American Society for, a technical Society founded in 1898 to promote knowledge of the materials of engineering and to standardize specifications and methods of testing. Membership 6,000. President Arthur W. Carpenter. Executive Secretary C. L. Warwick, Headquarters. 1916 Race Street, Philadelphia 3, Pennsylvania During 1946 the Society intensified many of its activities into newer fields and began a study of technical work on ultimate consumer goods, the testing of parts and assemblies; a study of testing building constructions, and new standards were completed covering various aspects of adhesives; testing gaseous fuels and numerous other materials and products. The 1946 Annual Meeting, the forty-ninth, was held in Buffalo, New York, during the week of June 24, with the Biennial Exhibit of Test-

ing Apparatus and Related Equipment. The 1947 Committee Week and Spring Meeting is to be in Philadelphia, February 24–28, and the Annual Meeting will be in Atlantic City during the week of June 16, 1947.

Textile Foundation, The, an organization founded in 1930 to do scientific and economic research for the benefit of the textile industry. Chairman of Board of Directors· Franklin W Hobbs Secretary, Edward T Pickard Headquarters· Industrial Building, National Bureau of Standards, Washington, D C Fundamental research laboratories are at Princeton, New Jersey. Publication office is at Kent, Connecticut

Theosophical Society in America, The, was founded in November, 1875, for the purpose of forming a nucleus of the universal brotherhood of humanity, without distinction of race, creed, sex, caste or color, to encourage the study of comparative religion, philosophy, and science, and to investigate the unexplained laws of nature and the powers latent in man. The Society is world-wide in scope, having its international headquarters at Adyar, India, and being organized into national Sections in thirty-nine countries. National President· James S Perkins. Vice President E. Norman Pearson. National Secretary Miss Ann Kerr. National Treasurer Edwin N. Lord. The foregoing, together with the following, constitute the National Board of Directors· L W. Rogers, William J Ross, and John A. Sellon Headquarters P O. Box 419, Wheaton, Illinois. There will be held at National Headquarters, during 1947, the National Convention, from July 19 to 23, and the summer school sessions.

Town Hall, Inc., The, founded in 1894 to establish a nonpartisan, nonsectarian educational institution for the advancement and study of science, the arts, social, political and industrial problems, and to aid in the development of good citizenship and sound municipal government Membership 2,500 President George V Denny, Jr Educational Director: Gregor Ziemer. Vice President–Comptroller William Steinhoff Secretary Mrs Yorke Allen. Headquarters The Town Hall, 123 West 43 Street, New York 18, New York Outstanding events during 1946–47, fifty-second season, included a series of morning lectures Mondays, Wednesdays, and Saturdays from November through March; a series of Town Hall Workshops and Short Courses; a broadcast of "America's Town Meeting of the Air" each Thursday evening over the American Broadcasting Company network

Trade Association Executives, American, formed in 1920 as a means to establish a better and wider public understanding of the purposes and functions of responsible trade associations, the professional standards of service and conduct which they maintain, and character of service rendered; and provides a common ground where men and women representing trade associations may pool their interests and share in the interchange of information and opinion Membership nearly 1,100 President James L Fri Treasurer Richard P White Executive Secretary· Ruth I. Mulroy Headquarters 421 Evening Star Building, Washington 4, D C The Annual Meeting was held at the Hotel Cleveland, in Cleveland, Ohio, October 10–12, 1946

Transportation Association of America, founded in April, 1935, to carry out research and education in matters pertaining to transportation, dedicated to the preservation of private ownership, and to the formulation and effectuation of a sound national transportation policy. President· Sydney Anderson, Secretary: E C Krogh Headquarters 105 West Adams Street, Chicago 3, Illinois.

Travelers Aid Association, National, an organization founded in 1917, to promote throughout the country means of cooperation, and to improve the standards of Travelers Aid Service, to study the causes of migration; and to encourage a public understanding of moving people Travelers Aid Service includes individualized information, travel, and short contact service to travelers and other persons, in difficulty, away from their homes Membership operating members, 103 Travelers Aid Societies providing Travelers Aid services in 431 communities; cooperating members, 871 organizations and individuals on call for Travelers Aid service in 1,144 places where no regular Travelers Aid Society exists; associate members, individuals and organizations interested in supporting Travelers Aid services President Hobart M McPherson Secretary: Mrs Robert C Clothier Headquarters· 425 Fourth Avenue, New York 16, New York As a member agency of the United Service Organizations, Inc, it has administration of the USO Travelers Aid Service Units and general supervisory responsibility for the Lounges for Troops in Transit. A biennial convention is scheduled to be held in 1948

Tuberculosis Association, National, founded in 1904 for the study and prevention of tuberculosis Membership: approximately 3,400 President: Dr William P Shepard, Secretary: Dr. Herbert R Edwards Headquarters· 1790 Broadway, New York 19, New York In 1946 the Trudeau Medal was awarded to Dr. Max Pinner at the forty-second annual meeting of the Association, Buffalo, New York, June 10–13, 1946

United Nations, Inc., American Association for the, formerly the League of Nations Association, founded in 1923 to teach the need for the cooperation of all nations in building an international organization as the essential basis of peace; now exclusively devoted to studies and popular education activities on the United Nations. Membership 10,000 President Dr William Emerson. Director Clark M Eichelberger. Headquarters: 45 East 65th Street, New York 21, New York Research affiliate The Commission to Study the Organization of Peace. The Association and the Commission publish expert reports and popular material in connection with a three-fold program of education (1) on the United Nations and its specialized agencies; (2) on American foreign policy to make effective United States membership in the United Nations; (3) on necessary revision of UN and its agencies to meet the changing needs of a changing world. Services national and local groups with speakers, recordings, program and teaching aids, press and feature material Monthly magazine *Changing World* Sponsored national United Nations Week, October 20 to 26, to coincide with first meeting of the General Assembly in the United States on October 23. Working in conjunction with National Broadcasting Company and National Education Association on the project, secured the cooperation of over eighty national organizations. Local programs were carried on through twelve regional offices and forty city and state-wide branches of the Association for the project and for regular program of the Association The Association's Education Committee conducted its 20th National Student Contest in 1946, with 1,738 public, private, and parochial schools participating. The theme was the United Nations. It also organized in the colleges some eighty-five United Nations Committees, which have formed the Collegiate Council for the United Nations, as well as a new affiliate, United Nations Youth, for high school young people.

United Seamen's Service, Inc., founded September 1, 1942, to provide for merchant seamen rest centers, residential and recreation clubs, personal service, and any other aids necessary to the health, morale, and general welfare of officers and men of the merchant marine, both in the United States and abroad. Chairman of the Board Admiral William Ward Smith President· William S Newell Secretary Miss Dorothy Kahn Executive Director· Otho J Hicks. Headquarters, 39 Broadway, New York 6, New York On October 1, 1946, USS was operating in fifteen ports in the United States and eighteen overseas In these ports it had fifty five different facilities, consisting of residential and recreational clubs, personal service offices, port medical offices and rest centers for seamen As war fronts advanced during 1945, centers were opened in Germany, Japan, and China to give services to seamen carrying supplies to fighting armies; in 1946 these and other centers continued for seamen carrying relief and reconstruction cargoes and occupation troops' supplies as well as reviving commercial traffic.

United Service for New Americans, Inc., created in 1946 by consolidation of National Refugee Service, Inc and National Service to Foreign Born of National Council of Jewish Women Aids displaced persons and refugees immigrating to the United States; provides a complete program of service for their integration in American life Membership· Individuals, 500, organizations, 1,200 cooperating local groups and agencies President Edwin Rosenberg Executive Director Joseph E Beck Headquarters 15 Park Row, New York 7, N Y Service in 1946 included· provisions of agency's corporate affidavit as basis for issuance of 2,800 visas; family service and economic assistance to 4,780 individuals, 62,400 migration services, 7,800 port, dock, and transient services; temporary shelter for 1,280 individuals Also provides specialized services for refugee children and professional groups, location and international social service; job placement, vocational guidance, and retraining The agency is non-sectarian in scope, though parts of its program deal mainly with Jewish immigrants

United Service to China, Inc (formerly United China Relief, Inc) organized in February, 1941, to raise funds for relief, rehabilitation, and other forms of constructive service to China, and also to promote understanding and cooperation between the peoples of America and China. Honorary Chairmen General George C Marshall, and Paul G. Hoffman. National Campaign Chairman Edward R. Stettinius, Jr Chairman of the Board. Charles Edison Vice Chairmen Eugene E Barnett, and Cornelius V. Starr. President· James L McConaughy Executive Vice President and Secretary. B A Garside Vice President and Field Director Dwight W. Edwards. Treasurer: James G Blaine Controller· Henry G. Perry Headquarters 1790 Broadway, New York 19, New York. Organizations Cooperating with United Service to China include the following American Bureau for Medical Aid to China, American-Chinese Committee of the Mass Education Movement; American Friends Service Committee, Associated Boards for Christian Colleges in China, China Aid Council; Church World Service, Indusco (American Committee in Aid of Chinese Industrial Cooperatives).

University Professors, American Association of, a professional organization of college and university teachers and

investigators, founded in 1915 to facilitate more effective cooperation among the members of the profession, to promote the interests of higher education and research, and to increase the usefulness and advance the standards and ideals of the profession. The nature of its work is indicated by the titles of the committees, which include Academic Freedom and Tenure, Freedom of Speech, International Relations, Educational Standards, Author-Publisher Contracts, Professional Ethics, Relation of Junior Colleges to Higher Education, Cooperation with Latin-American Universities, Pensions and Insurance, Preparation and Qualification of Teachers, Encouragement of University Research, Library Service, Place and Function of Faculties in College and University Government, and the Economic Welfare of the Profession Membership: 20,000 President· Edward C Kirkland General Secretary Ralph E Himstead Headquarters. 1155 Sixteenth Street, N W, Washington 6, D.C

Urban League, National, an interracial organization founded in 1910, which works to improve living conditions among Negroes in cities throughout the United States The League operates through affiliates in fifty-five key industrial centers, which have interracial boards and committees staffed by professional trained workers Membership· about 60,000 President· William H Baldwin. General Secretary Eugene Kinckle Jones Executive Secretary Lester B Granger Headquarters· 1133 Broadway, New York 10, New York In 1946 the League accepted two new affiliates—Denver and Oklahoma City; made social surveys in five cities, followed by special conferences with local leaders on housing, employment, child welfare, health, and leisure-time activities; conducted continuous vocational training and occupational counseling service, provided five social service fellowships at the New York School of Social Work and at the University of Pittsburgh, promoted publicity in daily and periodical press on interracial matters It publishes *Opportunity, Journal of Negro Life,* and occasional papers on problems of racial contact The 1947 Annual Meeting to be held in New York February 19

Veterans Committee, Inc, American, was founded in January 1943, by veterans of World War II, for the purpose of achieving a more democratic and prosperous America and a more stable world Membership· 75,000 Chairman: Charles G Bolté Vice Chairman· Gilbert A. Harrison National Planning Committee Meyer Bernstein, Fred Borden, Alex Efthim, Lewis Frank, William Goodman, E J Kahn, Jr, Cord Meyer, Jr Merle Miller, Robert Nathan Kenneth Pettus, Morris Pottish, Ben Rinaldo, Oren Root Jr, Franklin Roosevelt, Jr, Michael Straight, Franklin Williams Headquarters· 1860 Broadway, New York 23, New York.

The AVC pushed a very active legislative program Its legislative office implemented the AVC stand with conferences and discussions with members of Congress and many activities were promoted on a nationwide basis in connection with OPA, housing, terminal leave, cars for amputees, and other bills The National Planning Committee Meeting was held November 9–11, 1946 The American Veterans Committee Convention will be held in May, 1947

Veterans of Foreign Wars of the United States A year of expansion in the Veterans of Foreign Wars of the United States that brought membership to near the 2,000,000 mark and the number of local posts to more than 8,000 was climaxed by the 47th National Encampment at Boston, Massachusetts, September 1–6 Indicative of the increased power and prestige of the organization was the imposing list of encampment speakers, among them, General Dwight D Eisenhower, Admiral Chester W Nimitz, General Carl Spaatz, General Omar Bradley, President William K Jackson of the United States Chamber of Commerce, President William Green of the American Federation of Labor, and National Housing Administrator Wilson Wyatt The delegates, through encampment resolutions, established aggressive policies for the organization on national and international issues While endorsing the United Nations as the agency for preserving world peace and calling upon member nations to renounce war as a sovereign right, the overseas veterans insisted upon maintenance by the United States of a strong military establishment They endorsed extension of Selective Service, universal military service and stockpiling of materials essential to military operations. The encampment called for positive measures to halt activities of Communists, Fascists, and un-American agitators in the nation, demanding that members of the Communist party be barred from state and federal ballots In other resolutions, the V F W, called for retention by the United States of all information on the atomic bomb, revision of the veteran housing program to vest control of all phases in a single administrator, and enactment of the National Employment and Economic Development Corporation Act to create jobs and opportunities for veterans No stand was taken on the issue of unification of the Armed Forces pending receipt of testimony by experts on both sides of the question. The list of 1946–47 officers of the V.F.W includes: Louis E. Starr, Portland, Oregon, Commander-in-Chief; Ray H. Brannaman, Denver, Colorado, Senior Vice Commander-in Chief; Lyall T. Beggs, Madison, Wisconsin, Junior Vice Commander-in-Chief; R. B Handy, Jr, Kansas City, Missouri, Quartermaster General; Edward H McAloon, New York, New York, Judge Advocate General, Dr Matthew S. Levitas, Brooklyn, New York, Surgeon General; and the Rev Gerald M. Dougherty, Chicago, Illinois, National Chaplain

Veterinary Medical Association, American, founded in 1863 to promote veterinary science and its proper application. Membership 9,500 President B T Simms Secretary: J G Hardenbergh Headquarters· 600 South Michigan Avenue, Chicago 5, Illinois. The International Veterinary Congress prize for distinguished service to the veterinary profession was awarded in 1946 to Dr. T H Ferguson, Lake Geneva, Wisconsin The Borden Award for 1946 for outstanding research contributing to the control of dairy cattle disease was awarded to Dr W E Cotton, Alabama Polytechnic Institute, Auburn, Alabama. The Humane Act Award for 1946 was awarded to John Newton of Columbus, Ohio The 1946 meeting was held in Boston.

Vocational Association, Inc., American, founded in 1925 with the conviction that occupational education is a primary right and privilege of every citizen Membership· 25,000 President C L Greiber Executive Secretary L H Dennis Headquarters: 1010 Vermont Avenue, N.W, Washington 5, D C

Vocational Guidance Association, Inc., National, founded in 1913 to unite persons engaged or interested in any phase of vocational guidance and occupational adjustment Membership 4,500 President C Gilbert Wrenn Executive Secretary Christine Melcher Headquarters, 82 Beaver Street, New York 5 New York Official journal *Occupations,* the Vocational Guidance Journal, published monthly October through May The organization functions through 75 branches, in 37 States, 2 territories, and Canada, national committees specializing in various phases of vocational guidance, regional conferences Current activities are concerned with school-work programs, plans for occupational adjustment and rehabilitation, and cooperation in promoting vocational guidance in Latin America National Convention will be held April 6–10, 1947, Stevens Hotel, Chicago, Illinois

Weights and Measures, American Institute of, founded in 1916 to defend the English system of weights and measures against pro-metric propaganda and to be educational in respect of the use of weights and measures President W R Ingalls Secretary Robert F Cogswell Headquarters of the Institute 33 Rector Street, New York 6, New York

Wildlife Foundation, American, an organization incorporated in 1935 for the conservation and restoration of North American wildlife President Frederic C. Walcott, Secretary C R Gutermuth Headquarters Investment Building, Washington 5, D C The foundation is devoted to the advancement of all phases of natural resource conservation, restoration and management and uses its reserve of endowed funds to perpetuate the essential and necessary wildlife activities that cannot be financed by public funds, or are curtailed by the occasional and frequently experienced governmental retrenchments The foundation is equipped to receive contributions from public-spirited individuals, firms and corporations, safeguard the holdings, and expend the funds or the interest therefrom in the most economical and advantageous manner and for the best public interest Contribution to this Foundation Fund is subject to deduction for income tax purposes

Wildlife Management Institute, an educational and scientific organization incorporated in 1946 for the restoration and management of wildlife resources President Dr Ira N Gabrielson Vice President: C R Gutermuth Headquarters· 822 Investment Building, Washington 5, D C The Institute through its field staff is equipped to cooperate with all agencies and groups in advocating the adoption and use of sound wildlife practices and techniques on both public and private lands It sponsors the annual North American Wildlife Conferences and publishes the Transactions of these important meetings The Institute publishes outstanding books on wildlife subjects, as well as booklets and leaflets relating to the restoration and wise use of natural resources It encourages the training of technical personnel and the promotion of essential research through the issuance of college scholarships, fellowships, and research grants The Institute sponsors cooperative game management and research projects in the several States, Canada, and Mexico It also disseminates practical literature and information designed to stimulate a better understanding of the imperative need for the proper management and restoration of the nation's renewal resources

Woman's Association, American, founded in 1922 to provide for women engaged in commercial and professional pursuits· facilities for business and social contacts, and opportunities for recreation, mental stimulus, and physical betterment; to advance the economic, cultural, and social interests of women in their chosen fields of endeavor;

and to maintain in the City of New York and elsewhere a clubhouse or other club quarters. Membership limited to 2,000 President, Natalie W. Linderholm, Secretary, Elizabeth Kelley. Headquarters: The Barclay, 111 East 48 Street, New York 17, New York Events of 1946 included the annual Association Meeting in April at which the Anna W. Porter Memorial Award was given to Helen G Fuller, quarterly meetings in February, September and December, the formal opening of National Business Women's Week in October, the 20th Annual Friendship Dinner in November at which the AWA Award for eminent achievement was presented to Dr Elise Strang L'Esperance, and AWA Woman of the month honors to Elizabeth Arden, Mary H Donlon, Sara G. Blanding, Jane Peterson, Mrs. Oswald B Lord, Sally Butler, and women delegates to the U N General Assembly.

Woman's Christian Temperance Union, National (WCTU), founded in 1874 to unite Christian women of the United States, for the education of public sentiment in favor of total abstinence from the use of all alcoholic beverages, and to train youth in habits of sobriety. Membership, about 400,000. President Mrs. D. Leigh Colvin. Secretary· Miss Lily Grace Matheson. Headquarters· 1730 Chicago Avenue, Evanston, Illinois. To develop a working personnel, an organization training school is held yearly at headquarters To train teachers to supervise narcotic education in schools, a three months' winter seminar is held in Evanston and summer credit courses in various colleges, as well as courses at Evanston and Chautauqua are given. A midyear round table for those who have completed the credit courses is held at headquarters Increased gifts and purchases brought the collection in the Frances Willard Library up to four thousand volumes, and a similar number of pamphlets and manuscripts, making it the largest alcohol reference library in the United States, open to scholars and specialists in this field. Children's and youth's activities are strengthened through accelerated programs of the Loyal Temperance Legion and the Youth Temperance Council

Women Artists, Inc , National Association of, founded in 1889 to exhibit and display works of art by contemporary artists Membership 800 President Mrs Grace Treadwell Secretary Mr. Arion Mueller Gallery Director: Bianca Todd Headquarters The Argent Galleries, which the Association maintains, 42 West 57 Street, New York 19, New York The Association sponsors an Annual Exhibition, at which a number of prizes are awarded, general exhibitions, rotary shows, a sketch class, lectures, etc. The annual open meeting is held at the headquarters the second Wednesday in April At the Annual Exhibition, held at the National Academy of Design in April, 1946. prizes were awarded to the following· For sculpture, Maria Numez del Prado, Grace Turnbull, Ruth Nickerson, Katherine Lane, and Frances Mallory Morgan; for painting, Catherine Grant, Betty Waldo Parrish, Ada Rosario Cecere, L K McDuffie, Theresa F Bernstein, Rose Churchill, Frances Pratt, Mary van Blarcon, and Cornelia Hildebrandt; and for prints, Gladys Mock, Roselle Osk, Alice Murphy. Association prizes were awarded to Gene Alden Walker and Lillian Cotton

Women's Clubs, General Federation of, founded in 1890 to unite women's clubs and like organizations throughout the world for the purpose of mutual benefit, and for the promotion of their common interest in education, philanthropy, public welfare, moral values, civics and fine arts. Membership 3,000,000 women in 17,000 clubs, 50 state federations, including Alaska, District of Columbia, and 61 foreign clubs Major activities a "Youth Conservation" program, which has been instrumental in establishing State Youth Councils and community recreation centers throughout the country; an educational and legislative campaign to strengthen and expand the United Nations, an international goodwill program through which thousands of contacts have been made with women abroad, through the medium of the General Federation's foreign and territorial clubs, and food and clothing sent to needy families, a scholarship program for American and foreign students (since 1930, a total of $59,707 has been awarded as gifts to eighty foreign students for study in higher institutions of learning in the United States); a veterans' program aimed at establishing community one-stop service centers; participation in all national relief programs. Monthly publication, September to May inclusive, *General Federation Clubwoman.*

Women Voters, The League of, is a nation-wide, nonpartisan organization established in 1920 to encourage citizen participation in government. Its purpose is "to promote political responsibility through informed and active participation of citizens in government It may take action on governmental measures and policies in the public interest. The League shall not support or oppose any political party or candidate"

For over 25 years the League's work has centered around the one idea—that the strength of a democratic society lies in the political education of its citizens. Its membership totals 62,000 There are 525 local Leagues in 35 States and the District of Columbia. Headquarters: 726 Jackson Place, Washington 6, D.C.

At the Convention held in Kansas City in 1946, a program for the next two years was voted. The suggestions for the program had come from the membership through the League's unique program-making procedure. They had been studied and discussed in the 525 local Leagues so that delegates to the Convention were familiar, not only with the subjects, but with the opinion of the League members toward them.

The Current Agenda for the next two years as adopted by the Convention was

I. International Control of Atomic Energy Through United Nations. Domestic Control Under a Civilian Agency to Insure Full Development in the Public Interest
II. Acceptance by the United States of Its Full Share of Responsibility for Strengthening the United Nations.
III. Strengthening the Organization and Procedures of the Congress
IV. Government Economic Policies Which Will Prevent Inflation and Deflation and Stimulate Production and Employment

The work of the League in stimulating and fostering the growth of the individual citizen, is done in many different ways and varies with the individual League Discussion groups, campaigns to arouse the public to thinking about a problem of government, are devices used everywhere. Doorbell ringing campaigns, window displays, voters booths, public meetings, are only some of the techniques used

Woodrow Wilson Foundation, The, founded December, 1922, to promote the Wilsonian concept of international organization and world cooperation. It is a non-membership organization. President Marion E Park. Vice President Frank Altschul Secretary Mrs Henry Goddard Leach. Executive Director Mrs. Burnett Mahon. Headquarters Woodrow Wilson House, 45 East 65th Street, New York 21, New York The Foundation publishes the *United Nations News,* a monthly report on the United Nations and Specialized Agencies The Woodrow Wilson Award for Distinguished Service was given to Hon. Henry L. Stimson and Sean Lester, Secretary General of the League of Nations

World Alliance for International Friendship Through the Churches, founded in 1914 to promote international goodwill and peace Membership about 1,000. President Rt Rev G. Ashton Oldham. General Secretary· Henry A. Atkinson Headquarters· 70 Fifth Avenue, New York 11, New York The organization publishes a monthly *News Letter, Pattern for Peace, Catholic, Jewish, and Protestant Declaration on World Peace, Crossroad of Conflict, World Alliance, Purpose and Program* First meeting of International Committee of World Alliance held in July, 1946, in London, England The American Council's Annual Meeting was held in Indianapolis, Indiana, in November, 1946.

World Calendar Association, Inc., The, founded in 1930 to study the defects of the present calendar and to educate the public on the benefits of calendar revision and the advantages that would result from adoption of The World Calendar, a perpetual stabilized balanced calendar, always the same, of twelve months with increased emphasis on the division of the year into four equal quarters. President· Elisabeth Achelis. Vice President, Charles S. McVeigh Secretary-Treasurer, Harriet Lillie. Director. Westy Egmont International Headquarters International Building, 630 Fifth Avenue, New York 20, New York. The World Calendar Association publishes the *Journal of Calendar Reform,* a quarterly periodical, of which Westy Egmont is the Editor The World Calendar has been approved by fourteen nations, many organizations and distinguished scientists, scholars, economists, businessmen, religious leaders, and government officials. During the year 1946 legislation was introduced in both the House of Representatives and the Senate of the Congress of the United States for adoption of The World Calendar Elisabeth Achelis and Westy Egmont were accredited by the United Nations as representatives of The World Calendar Association The interest of The World Calendar Association in a wide variety of subjects being handled by separate commissions was noted by the Economic and Social Council of the United Nations The World Calendar was on the agenda of the Inter-American Economic and Social Council of the Pan American Union

World Peace Foundation, established in 1910 to promote international order and peace through publications, study groups, and a reference service President: Harvey H. Bundy Director Raymond Dennett. Chief of Reference Service Marie J Carroll Headquarters 40 Mt. Vernon Street, Boston 8, Massachusetts The Foundation published in 1946· volume VII of *Documents on American Foreign Relations,* edited by Leland M. Goodrich and Marie J Carroll, *The United Nations in the Making: Basic Documents,* second edition, *United Nations Economic and Social Council,* by Dr Herman Finer, *Charter of the United Nations: Commentary and Documents,* by Leland M. Goodrich and Edvard Hambro, second printing with index. The following titles are scheduled for 1947:

volume viii of *Documents on American Foreign Relations*, edited by Raymond Dennett and Marie J. Carroll; volume ii of *War and Peace Aims of the United Nations*, edited by Louise W Holborn

Beginning in February 1947 the first number of a new magazine *International Organizations* will make its appearance under the editorship of Raymond Dennett. Two other numbers will be issued during the year, May and September. Articles on the problems involved in the development of international public institutions, by outstanding leaders and scholars, factual summaries of the work of the United Nations, the I L O., and other international organizations, such as the International Bank, and the Food and Agriculture Organization, official documents and a selective bibliography will make up the contents of this unique periodical designed especially for students and teachers in the field of international relations.

Young Men's Christian Associations, The National Council of (Y.M C A.), formed as a national committee in 1866. The first local organization was formed in London, in 1844 (in the United States in 1851), for the physical, mental, social, moral, and religious education of youth. Membership· 1,411,341 in 1,345 local Associations President· Kirtley F. Mather General Secretary: Eugene E Barnett. Headquarters 347 Madison Avenue, New York 17, New York Highlight of 1946 was the forty-fifth International Convention, the first in ten years, which challenged the Associations of Canada and the United States to raise $8,650,000 for reconstruction of war-ravaged Y.M C A 's around the world, and for meeting war-occasioned needs at home. Since 1889 North American Y.M C A 's have aided expansion of the Movement in thirty-two countries through a world service program In American Y M C A 's there was during 1946 steady progress in reconversion from war to peacetime services, with special efforts to assimilate veterans and ex-prisoners-of-war in on-going counseling, school, health, informal education, and social programs. Service to the armed forces continued in twenty-two Army and Navy Y M C A 's and one hundred fourteen Y M C A -operated U S O clubs. The program of the Student Christian Associations expanded to meet the needs of the thousands of veterans returned to college campuses Work with children and adolescents in Y M C A -sponsored school and neighborhood groups and camps continued to grow. Youth of eighteen states studied citizenship by actual practice in government through the Y M C A Youth and Government program The Association continued the policies of assisting youth and adults to play their part as Christians in the struggle for freedom, and a world of justice, peace, and order; sharing with churches, educational and government agencies in creating a public opinion that will assure acceptance by Americans of their responsibilities in the world order; and joining with other Christian movements in education and motivation of youth for the practice of democracy at home, as between groups based on race, color, religion, or economic distinction.

Young Women's Christian Associations of the United States of America (Y.W.C.A.), established in 1906 to advance the physical, social, intellectual, moral and spiritual interests of young women Membership about 670,000. President Mrs. Arthur Forrest Anderson General Secretary Mrs. Harrison S Elliott Headquarters 600 Lexington Avenue, New York 22, New York. In March of 1946 the Y W.C.A 's of the United States held their seventeenth national convention in Atlantic City, New Jersey, after an interval of six years. In addition to the more than 2,300 delegates from the Y.W.C A.'s in the United States, there were present forty-nine representatives and guests from twenty-six foreign countries. The convention adopted a Public Affairs Program for the next three years, embracing such subjects as International Relations, Civil Liberties and Democratic Rights, Social and Economic Welfare, Minority Groups, Education, Public Health and Special Problems of Youth. A report of the Commission to Study Interracial Practices in Community Y.W.C.A.'s was discussed and an Interracial Charter adopted looking toward a forward move in the whole matter of interracial practices. A fund of at least $2,000,000 for a program of reconstruction of Y W C A 's in other countries and a fund of $500,000 for the extension of Y.W C.A. work in the United States were also voted by the convention. In 1946 the Y W C A. in the United States served nearly 3,000,000 women and girls by providing through its 1,523 local centers, housing, food service, educational and recreational activities, and other services specially designed to help them live as Christian individuals and citizens in the postwar world.

Youth Hostels, Inc., American, founded in 1934 to help all, especially young people, to greater knowledge, understanding, and love of the world by providing for them Youth Hostels (inexpensive overnight accommodations) in America and by assisting them in their travels both here and abroad over bike trails, foot paths, and highways. Membership: over 115,000. President John G. Winant. Treasurer· Anthony D. Duke. National Directors: Isabel and Monroe Smith. Headquarters· Northfield, Massachusetts. During 1946, 100 young people (AYH Europe Reconstruction groups) went abroad to reconstruct bombed youth hostels, taking with them their own food, supplies, bicycles, etc., in order not to be a drain on meagre food supplies. Plans are being made for similar groups to go to Europe in 1947.

Youth Problems, Committee on, appointed by the American Council on Education in 1942 to implement the findings of the American Youth Commission, and to form a rallying point for the many and worthy organizations carrying on youth programs, both governmental and non-governmental. Chairman· Henry I. Harriman. Secretary: Francis J. Brown. Headquarters: 744 Jackson Place, Washington 6, D C. The original American Youth Commission was set up in 1935 by the American Council on Education with funds granted by the General Education Board, to study and evaluate factors relating to the care and education of American youth. With publication of its final report, *Youth and the Future*, in January, 1942, the work of the Commission was completed, and with its disappearance it was apparent that there was no one group left in the field whose interest was not centered upon some one segment of the youth population of the nation. For this reason the Committee on Youth Problems was founded. Publications: *Color, Class, and Personality; Youth and the Future, Working with Rural Youth; Youth in the CCC; Barriers to Youth Employment;* and 20 other titles.

Zionist Organization of America, founded in 1897 to enlist public support for the reconstitution of Palestine as a Jewish Commonwealth and to foster a program of Jewish culture renaissance Membership· 200,000, exclusive of membership of affiliated and constituent organizations President Dr. Abba Hillel Silver. Executive Director Dr Sidney Marks Headquarters· 41 East 42nd Street, New York 17, New York The Zionist Organization of America is the main instrumentality of American Jewry for the upbuilding of Palestine as the Jewish National Home To this end, the organization carries out a nation-wide program of public enlightenment and education on the aims of the Zionist movement designed to acquaint the American public with the achievements of the Jewish community of Palestine and to enlist public support for the establishment of Palestine as a Jewish state It also conducts a network of cultural projects aimed at the mobilization of all segments of American Jewry behind the upbuilding of Jewish Palestine The forty-ninth annual convention was held in Atlantic City, New Jersey, on October 25–29th, 1946.

Zonta International, a classified service club of executive business and professional women, organized in Buffalo, New York, in 1919 There are one hundred fifty-eight clubs in Canada, Denmark, Hawaii, Iceland, Sweden, and the United States with approximately 5,500 members Main objectives are community service; encouragement of high ethical standards in business and the professions; improvement of the legal, political, economic, and professional status of women, and the advancement of international understanding, good will, and peace through a world fellowship of executive women Zonta's chief service is constructive and educational work with women and girls and includes· youth centers, nursery schools; cooperation with juvenile authorities, health and social welfare programs; improved facilities for women and girls; encouragement to older business women; vocational counseling; and scholarships and loan funds for students The Amelia Earhart Scholarship, in memory of the United States aviatrix and Zontian, is awarded annually to a young woman qualified for graduate study in aeronautics. Three awards were granted in 1946, one of them to a young woman from Sweden, the first award won by a person outside the United States In promoting educational work for girls, Zonta is sponsoring a new radio program on vocational counseling, bringing as its guests top women from each vocation to answer the questions of girls interested in choosing their life work Another valuable 1946 contribution in the field of world peace and the status of women was the November 8 radio program, short-waved to all parts of the world, with Mrs Bodil Begtrup of Denmark, chairman of the UNO Commission on the Status of Women, as the guest of Zonta International. International Headquarters 59 East Van Buren Street, Chicago 5, Illinois Executive secretary Harriet C Richards Mrs. Lucile D. Edgar is editor of *The Zontian*, official publication.

SOCIOLOGY. The end of the war and the subsequent rapid increase in college enrollments has meant a return of many sociologists from wartime assignments to college campuses and increased attention to graduate and undergraduate teaching. Developments during 1946 indicate that the war experience may have increased the emphasis on cooperation among various disciplines, rather than compartmentization. College courses which utilize the materials of more than one of the Social Sciences are increasingly being developed and there

is a growing number of research projects which involve cooperation among the Social Sciences.

One development along this line is the establishment of a new Department of Social Relations at Harvard University. This Department incorporates all of the former Department of Sociology, that part of the Department of Psychology which dealt primarily with social and clinical psychology, and that part of the Department of Anthropology which was concerned primarily with social anthropology. The announcement of this new Department states ". . . there has been developed, especially since the last decade, the synthesis of sociocultural and psychological sciences which is widely recognized within the academic world in spite of the fact that there is no commonly accepted name to designate the synthesis. We propose that Harvard adopt and thus help establish the term 'Social Relations' to characterize the emerging discipline with the body of fact and theory traditionally recognized as the subject matter of sociology, but also with that portion of psychological science that treats of the individual within the social system and that portion of anthropological science that is particularly relevant to the social and cultural patterns of literate societies. The recent war greatly accelerated the fusion of research activities in this common territory. Work on wartime projects virtually obliterated distinctions that were already breaking down between social scientists engaged in the study of fundamental problems of social relations." The Department, in addition to its teaching functions, will conduct a laboratory of social relations which will provide physical facilities for many types of psychological and social research, offer training to students in empirical, statistical, and field methods of investigation and serve as a center for the development of various cooperative programs of research.

Other large-scale cooperative research projects under way are those of mental health needs in Ohio, a study of Wisconsin's cultural backgrounds, and the studies in a number of government departments. A study of refugees and their adjustments was completed during the year, and the first volume of the report on an extensive study of the evacuation and relocation of Japanese in this country has been issued.

Many students are turning to an analysis of wartime experiences and wartime developments. The Census of Research conducted at mid-year and reported in the August issue of the *American Sociological Review* indicates a large number of projects in which the student is utilizing data collected in connection with the war effort. Perhaps the major work of this type is the analysis of the social psychology of American troops, based on the extensive surveys conducted by the Army during the war on all phases of the soldiers' activities. This includes experiments in communication, especially with respect to Army orientation and training. The Department of Agriculture Appropriation Bill includes a proviso which prohibits the use of any of the funds for "cultural surveys." The immediate occasion for that proviso was a group of studies of contemporary rural culture in a number of sample areas, carried on in the Bureau of Agricultural Economics.

In the Congressional debate revolving around the National Science Foundation, one of the major issues turned out to be the inclusion or exclusion of the social sciences in the activities of the Foundation. One of the later versions of the bill provided for a Social Science Division but indicated that its first endeavors should be a definition of functions in relation to the major objectives of the Foundation. However, the bill as it passed the Senate omitted the Social Science Division, but even this bill was ultimately lost in the House.

The dissolution of the War Relocation Administration brought to an end the sociological and cultural studies of the relocation process and the "communities" established by the relocated individuals which that agency had conducted. It had given an outstanding illustration of the way in which studies of that type could be used in the administrative process.

The establishment of a surveys division in the Veteran's Administration marks the major development so far as government agencies are concerned. The division will conduct surveys of attitudes, opinions, and needs of various segments of the veteran population and of the personnel of the Veteran's Administration. It is intended that its work will be used primarily in planning and controlling operations.

Growing attention is being given to the field of opinion and attitude surveys, building to a large extent on the impetus given to this work during the war. The University of Michigan has announced the establishment of a "Survey Research Center" to provide facilities for social and economic research and for student training in survey techniques. In addition to conducting surveys of economic and social problems, the Center will provide graduate training in the method of making such surveys and will carry on a research to improve survey procedures is intended "to secure data that will help to integrate the social sciences."

Word was received that Professor Halbwachs of the University of Strasbourg had died in the concentration camp of Buchenwald. Death also removed from the ranks of practicing sociologists Earle Edward Eubank, particularly known for a study of concepts of sociology; Edward Byron Reuter, who had published studies in race problems and population problems, and C. E. Elwood, especially known for his books in social philosophy and for a widely used series of high school and introductory college texts.

CONRAD TAEUBER.

SOIL CONSERVATION SERVICE. An agency of the U S. Department of Agriculture, established in 1935. The Service promotes soil and water conservation, better soil utilization, and erosion control in agriculture, by supplying technical material and equipment to soil conservation districts organized under State laws and operated under local farmer direction. It also supervises the work programs of Civilian Public Service camps assigned to soil conservation activity. As of December 15, 1945, 1,440 soil conservation districts had been organized, including approximately 794,011,196 acres and roughly 3,615,979 farms. Under the guidance of the Service, drainage operations are performed on lands which thus can be made suitable for sustained production, and technical assistance is afforded to irrigation enterprises.

In cooperation with other agencies, the Service undertakes studies of the country's watersheds, preliminary to possible flood control operations on agricultural land. Agricultural lands which are submarginal or not primarily suitable for cultivation, are purchased by the Service and improved and managed to bring about needed land-use adjustments. Purchases aggregate over 11,297,000 acres. Of this, the Service manages 7,141,000 acres.

The Service undertakes water-resources studies to determine the feasibility of proposed flood-con-

trol, multiple-purpose, and agricultural water projects, and makes the data pertaining to them available to other agencies and enterprises for the correlation of water projects of mutual and public interest. Chief: Hugh H. Bennett.

SOLID FUELS ADMINISTRATION FOR WAR. An Agency established in the Department of the Interior by executive order on Apr. 19, 1943, which absorbed the preceding Office of Solid Fuels Coordinator for War. It centralizes government policies and activities pertaining to bituminous and anthracite coals and certain other solid fuels, utilizing the other agencies of the Department of the Interior in discharging its functions. The Administrator, who is the Secretary of the Interior, issues policy and operating directives to units of the solid fuels industries, recommends to the WPB any necessary program for wartime distribution or materials needed, and advises with the OPA on rationing and price adjustments, requests action from the War Manpower Commission when labor shortages threaten necessary wartime production, etc.

SOMALILAND. This lowland region lying east and south of the Abyssinian Plateau in the Horn of Africa is not a political unit, but is divided under French, British, Italian and Ethiopian sovereignty. Its area exceeds 375,000 square miles, with a population of more than 2,500,000. The region, despite its political fragmentation, has a geographic, ethnic and cultural unity. Its inhabitants are the Somali people who live a largely nomadic and pastoral life in a semi-desertic environment. Of Hamitic origin, they have a common language and are Moslems. There is no appreciable nationalist sentiment among them now, but their common background may give rise to one in the future. See separate articles on ETHIOPIA, FRENCH SOMALILAND, BRITISH SOMALILAND, and ITALIAN SOMALILAND.

SOUTH AFRICA, Union of. A self-governing dominion of the British Commonwealth of Nations, composed of four provinces. Area, 472,494 square miles. Population (1946 census), 11,259,000, of whom 2,335,000 were Europeans. Seat of the government, Pretoria; seat of the Legislature, Cape Town.

The People. Europeans form about 20 percent of the population of the Union of South Africa. Natives are the largest group (68 percent), while Cape-colored make up 7 percent and Indians three. Approximately 46 percent of the Europeans speak Afrikaans, 39 percent English, 3 percent English and Afrikaans, and the remainder German and Yiddish.

State-aided and state-conducted schools for Europeans are adequate in number, but schools for the native population are relatively fewer. The Union has five universities, with a total enrollment of 13,059 students in 1944. The religious affiliations of the European population at the time of the 1936 census were: Dutch churches, 55 percent; Anglican, 19 percent; Methodist, 8 percent; with the remainder largely Roman Catholic, Jewish and Presbyterian.

The Economy. Gold mining, which occupies four-fifths of the country's employed population and normally furnishes more than 70 percent of the value of all exports, is the country's most important business. South Africa stands first in the production of diamonds as well as in gold. Coal, copper, tin, iron, and manganese are also important mineral products. The raising of sheep and goats occupies a considerable sector of the population, and agriculture proper produces cereals, citrus fruits, sugar, wine, tea, tobacco, and a variety of other products. Manufacturing has made great progress in recent years, and further extension is under way, especially in iron and steel.

Government. Executive power is vested in the Governor-General, appointed by the Crown upon the recommendation of the South African Government, and in the Executive Council (Cabinet) which is responsible to Parliament. Parliament consists of a Senate of 44 members, eight elected from each province, eight appointed by the Governor-General and four elected by the native population; and a House of Assembly of 150 members elected from the provinces roughly in proportion to the white population, and three members elected by the natives who are on the Cape Native Voters' roll. Governor-General, Major Gideon B. van Zyl, assumed office 1946. Prime Minister, Field Marshal Jan C. Smuts.

Events, 1946. The problem of the Indian minority in South Africa, the occasion of difficulties of long standing, caused South Africa much concern in the spring of 1946 and reached the organizations of the United Nations in the autumn. The 250,000 or more Indians, settled largely in the province of Natal and especially in the city of Durban, to which Indians had been brought in 1860 as indentured workers in the sugar fields, were prevented by the Pegging Act of 1943, which applied to Durban only, from owning and occupying property in European areas. A reciprocal provision applied to Europeans. (See YEAR BOOK for 1945, p. 562.)

As the Pegging Act was to expire on March 31, 1946, the Government prepared a bill, called the Asiatic Land Tenure and Indian Representation Bill, to replace it. This bill, introduced by Prime Minister Smuts in Parliament in March, extended the control of dealings in fixed property between Asiatics and non-Asiatics and the occupation of fixed property to the whole of Natal. By this bill the permission of the Minister of the Interior was required if Asiatics were to acquire or occupy land outside certain exempted areas. The occupation provisions were extended to the Transvaal, where acquisition of land was already controlled.

The franchise provisions of the bill gave the Indians of Natal and the Transvaal joint representation by two Senators, one elected by the Indians and one appointed by the Government In the Assembly they were entitled to three members.

Indian Opposition. Indians in South Africa organized opposition to the "Ghetto Bill," as the Asiatic Land Tenure and Indian Representation Bill was termed by them, throughout the year. Passive resistance was the chief weapon used. The Government of India gave notice that it would break off trade relations with South Africa and decided in April that if the bill was passed it would bring the whole question of Indians in South Africa before the United Nations. The formal notice terminating India's trade with South Africa could not take effect until June 24, but exporters in India promptly put on their own embargo and in May South African farmers were already unable to obtain jute and gunny bags for shipping their crops, as well as cotton piece goods and spices.

After the bill was passed Indian passive resistance began in South Africa. On an appointed day in June Indian business houses closed their doors and meetings for prayer and protest were organized. White youths attacked Indian passive resisters camping on vacant lots and the police were called out. Passive resistance continued, however.

In June India sent the threatened protest to the General Assembly of the United Nations and the economic effect of the trade boycott became more severe.

United Nations Discussion. The Indian–South African dispute was the first major issue to confront the General Assembly of the United Nations in New York in October. On the second day of the session, October 24, General Smuts demanded that the protest be removed from the agenda. Instead, it was referred to the Political and Legal Committees of the Assembly. At about the same time a delegation from the South African Indian Congress Party left Pretoria to aid the Government of India in the New York sessions.

Almost immediately the situation became more complicated for the South African delegation by the introduction of the issue of South West Africa, the South African mandate desired by South Africa for annexation. The delegation from India at once introduced the Indian minority question into the discussions, and General Smuts retaliated by calling the treatment of the depressed classes ("untouchables") in India "the most terrifying phenomenon of the modern world" and alleging that hundreds of thousands of Indians would be glad to escape from their country into South Africa if the latter lifted its immigration bars.

In the first public airing of the dispute, in the meeting of the Joint Political and Legal Committees on November 21, a number of nations, including the three Russian nations and China, backed India's charges of racial discrimination, as a violation of the "human freedoms" sections of the United Nations Charter. General Smuts argued that unless the United Nations stayed away from domestic matters many countries would find their position in the organization "impossible and intolerable."

The discussion aroused great bitterness throughout, and the settlements reached were scarcely definitive. On December 8, by a vote of 32 to 15, with seven member countries abstaining, the General Assembly passed a resolution requiring both India and the Union of South Africa to report to the next session on measures to ameliorate conditions of Indians in the Union On December 14 the incorporation of the territory of South West Africa into the Union of South Africa was rejected by a vote of 37 to 0, with 9 abstentions. At home in South Africa Indian communities celebrated the decisions and other sections of the non-white population organized to obtain further political rights.

Activities of Prime Minister Smuts. The Prime Minister took his usual active part in other international conferences of the year and in Commonwealth deliberations In February he urged Parliament to ratify the United Nations Charter, a step which was taken unanimously on February 7. In May General Smuts was in London for the conference of Dominion Prime Ministers.

After a return to his own country for participation in House of Assembly sessions, the Prime Minister went to Paris for meetings of the Peace Conference, where he took his familiar place as the leading veteran of the Versailles Peace Conference. On this European visit he addressed also the Upper and Lower Houses of the Dutch Parliament, a joint session of the Belgian Houses of Parliament, and groups in London. In October he was in New York for United Nations sessions and back in South Africa by way of London on December 17.

Political Difficulties. The question of Nazi sympathizers in South Africa was only partially resolved in 1946. The issue still lay between the pro-war and anti-war groups of September, 1939, when Prime Minister Smuts carried the day and South Africa entered the war against Germany. It tended to crop up in local elections in 1946, although in the House of Assembly Smuts' United Party maintained its considerable majority over the Nationalist opposition party.

In May the House of Assembly accepted the Government's motion that a Parliamentary committee should inquire into allegations that during the war Dr. Daniel F. Malan, leader of the Nationalist opposition, consented to receive German agents but did not notify the authorities of the fact. The action apparently caused some apprehension among South Africans who sympathized with the Nazis, for rumors spread that the occupation authorities had uncovered incriminating documents in Berlin and that it might be necessary for certain South Africans to go into hiding or get themselves smuggled over the border. The committee, after investigation, exonerated Dr. Malan of all important charges.

Preparations for Royal Visit. In March, 1946, it was announced in London that the Royal family would visit South Africa early in 1947. In December, 1946, many details of the three and a half months' tour by the King, Queen, and Princesses were available At the height of the Indian–South African dispute at United Nations meetings some Negroes, Indians, and Communists in South Africa threatened to boycott the trip, and at the end of the year the attitude of non-Europeans remained uncertain.

Because of the color bar, the social arrangements for the tour presented many difficulties. In most cases the difficulty was solved by mentioning the appearance of their Majesties at "a gathering of non-Europeans."

Industrial Disputes. The gold mining industry in South Africa, which employs about 360,000 Africans and about 40,000 Europeans, experienced strikes in the course of the year. The most serious dispute broke out in August, when about 50,000 natives went out According to a statement issued by the organizing body, the African Workers' Union, the strike was called because of the intransigent attitude of the Chamber of Mines towards the legitimate demands of the workers for a minimum wage of 10 shillings a day and better conditions of work.

In the steel mills the methods of white strikers were adopted for the first time in July, when Negroes picketed steel plants in the Transvaal, preventing their operation. The demand of the workers was for a wage increase of four cents an hour. Throughout South Africa the rising cost of living was disturbing the standards of the many employees, especially non-Europeans, whose wages had not been altered for many years Also, many workers protested against the compound system and exclusion from social legislation.

A new gold find in the Orange Free State in April, at a point a few miles south of Odendaalsrust, provided the excitement and activity always found in such instances. Speculation in land followed the common pattern. In general, however, the gold industry was disturbed by the problem of rising costs. The opening of the new gold fields, together with other industrial activity in South Africa, caused an intensification of the demand for more immigrants of European origin.

ALZADA COMSTOCK.

SOUTH AMERICA. A continent comprising 10 republics (Argentina, Bolivia, Brazil, Chile, Colombia, Ecuador, Paraguay, Peru, Uruguay, and Vene-

zuela) and three colonies (British Guiana, French Guiana, and Surinam). Total area, about 6,937,445 square miles (17,968,000 square kilometers). Estimated population, 88,680,000 on January 1, 1940.

SOVIET LITERATURE. The principal themes that attracted the attention of Soviet literature in 1946 were connected with the experiences of the war that was just over and assimilation of them; they were the themes that reflected the hopes and dreams of the people concerning the postwar world. Parallel to these broader problems of literature, questions of an ethical and moral nature—friendship, love and family—questions of the upbringing of the rising generation, and so on, were treated. As formerly, the basic method in Soviet literature is socialist realism. Typical of the literature of 1946 were the redoubled efforts to find a synthetic embodiment in artistic form of the best traits and qualities of the new characters who came into existence with the Revolution in Russia, who built up socialism and defended in battle all they had won.

Following the established tradition in Russia, practically all books of importance are published in the first place in the literary monthly magazines. Most influential of these are the Moscow *Novy Mir* (New World), *Znamya* (Banner), *Oktyabr* (October), and Leningrad *Zvezda* (Star). Literary magazines, almanacs, and papers are published in Kiev, Minsk, Tallin (*Looming—Creation*), Vilnius, Tashkent, and other centers. *Soviet Books* should be mentioned as one of the new monthly periodicals devoted to criticism and bibliography. *Culture and Life* is a new paper that gives a great deal of space to questions of literary criticism and theory. *Literary Gazette* remains as before the organ of the Soviet Writers Union.

Literary Events. Several notable literary occasions were marked in 1946; two were the jubilee dates of Feodor Dostoievsky and Nikolai Nekrassov, poet of revolutionary democracy. Sessions, meetings, concerts, recitals, and articles in the press, were devoted to the memory of the founder of Soviet literature, Maxim Gorky; also of the popular novelist Nikolai Ostrovsky, author of *How Steel Was Tempered* and *Born of Storm* (in connection with the tenth anniversary of his death). The 25th anniversary of the death of the poet Alexander Blok was observed. A special session of the U.S.S.R. Academy of Sciences marked the 40th anniversary of the death of the great Scandinavian classicist Henrik Ibsen. A compilation of the works of the Kazakh peoples' poet, in Kazakh and Russian and translation in other languages spoken in the U.S.S.R., was timed to appear for the 100th birthday of the late Jamboul. The 50th birthdays of poets Nikolai Tikhonov and Pavel Antokolsky were marked in 1946 and they were awarded orders for their services to literature. The completion of 40 years of literary work by the Byelorussian poet Yakub Kolas was marked in Minsk and Moscow.

History of Greek Literature and *History of English Literature* (Part II, Vol. I), were published by the U.S.S.R. Academy of Sciences and a two-volume research work, *History of Literature in U.S.S.R.*, was prepared for the press. Twice in 1946, Stalin Prizes were adjudged for the best work in literature and art (for years 1943, 1944 and 1945). Among the prizewinners were Alexei Tolstoi (awarded for his tragedy *Ivan the Terrible*), V. Shishkov (for *Emilian Pugachev*, historical novel of the peasant war in Russia in the 18th century), and Vladimir Soloviev (for his drama *The Great Sovereign*, on Ivan the Terrible). Stalin Prizes were also awarded for *Young Guard*, the novel by Alexander Fadayev; for *Navoi*, Uzbek historical novel on Alisher Navoi, the great poet and humanistic philosopher, by Aibek; for *Days and Nights* by Konstantine Simonov; for *Two Captains* by V. Kaverin; *Unconquered* by Boris Gorbatov; *Simply Love* by Wanda Wasilevska; *Green Earth* by the Latvian writer, Andrej Upits; *Son of the Regiment* by Valentine Katayev; *Twelve Months*, drama story by Samuel Marshak; *Those at Sea*, play by Boris Lavreniev; *Pulkovo Meridian*, long poem by Vera Inber; *Flag of the Brigade* by Arkady Kuleshov; *Son*, a long poem by Pavel Antokolsky; volumes of lyrics by the Ukrainian poets L. Pervomaisky and N. Bazhan, and by the Armenian poet Avetik Isaakyan; and for translation of Dante's *Divine Comedy* by Mikhail Lozinsky.

Journalism and Memoirs. In 1946 fewer articles appeared than during the war, but more volumes of memoirs, diaries of eyewitnesses, and narratives of people who had seen and experienced a great deal. Books by partisans who fought in the enemy rear were particularly interesting. Outstanding successes were Major-General Kovpak's (two-star hero of the Soviet Union) diary *From Putivl to the Carpathians*, and the reminiscences of G. Lunkov who fought at the head of Belorussian partisans, and those of P. Ignatiev, commander of a North Caucasus partisan detachment. Petro Vershigora's book, *People With Clear Consciences*, which may be placed in the same series, is written with the ability of a professional writer. A very moving volume of letters and diaries of men who were killed at the front was completed under the title of *Soldiers' Life*. A volume of *Letters from the Front* came out in the Turkmen language.

Many descriptive articles on travels abroad were contributed to magazines by Soviet journalists. *Roads of Europe* and *American Impressions* were two series by Ilya Ehrenburg. Anna Karavayeva wrote *In France*, and M. Mendelson a very interesting article on *Mayakovsky on America*. The general interest shown in these themes is legitimate and understandable: the Soviet people want to know as much as possible about the friends with whom they fought against fascism.

As in other years, books of a biographical nature appeared in the series *Lives of Remarkable People*. A book on the great Russian physiologist, Ivan Pavlov, was published by N. Popovsky, author of *Inspired Seekers*, an account of Russian surgeons and bacteriologists. Alexander Dovzhenko, noted film producer, wrote the film story *Earth in Bloom* about the life of the Russian horticulturist and innovator, Michurin. *The Life of Stone*, a fascinating story of the valuable minerals in the U.S.S.R. by Professor Fersman, Member Academy of Sciences, was republished.

Reminiscences of Sergei Alliluyev, old worker and revolutionary, won general appreciation. Elena Koshevaya, mother of a leader of an anti-fascist youth organization, a boy of 16 who died a heroic death during the war, wrote a very moving *Story of My Son*.

Poetry. A number of young and talented poets who have entered this field have their own poetic voice; they are men from the front who grew to maturity and whose abilities were formed in war. Among them were S. Gudzenko, M. Lukonin, A. Mezhirov, A. Nedogonov, V. Urin, P. Tereshchenko, P. Doroshko, Maria Prigara. They describe their experiences in virile verse, singing of "The Springtide of Victors," and speak with confidence of the future.

Poets of the older generation, too, have matured in the war years, as witness the most recent verses of M. Isakovsky, A. Surkov, I. Selvinsky, A. Tvardovsky (*House by the Roadside*), Margarita Aliger (*Victory*), Pavel Antokolsky (*Third Book of War*), S. Shchipachev (*Lines of Love*, lyrical cycle), and S. Kirsanov (*Alexander Matrosov*, long poem). Among the leading Soviet poets are also the Georgian, G. Leonidze, Stalin Prize Winner; Ukrainians, Pavel Tychina, Member of the Academy, M. Rylsky and N Bazhan; Lithuanian, Prof. Kostas Korsakas (whose volume of verse *Birds Return*, appeared in 1946), Esthonians, Johannes Barbarusa (whose latest book of verse is called *Step by Step Towards Victory*) and Johannes Semper. Leonid Pervomaisky's *Soldiers' Songs* and wartime lyrics brought this Ukrainian poet wide recognition. The poems of Arkady Kuleshov (*Flag of the Brigade, House Number Twenty Four*, and *Cymbals*) show that this Belorussian's talent is gaining in power. Sergei Mikhalkov wrote a book of original and witty fables which were beautifully illustrated by three artists who sign themselves Kukryniksi. The selected poems of Sergei Essenin were published in an edition of 57,000 copies on the 20th anniversary of his death. Some excellent translation by Samuel Marshak of epigrams and verses of Robert Burns came out. Translations of some of Shakespeare's plays were made by Boris Pasternak. Publication of the "Poet's Library" series (both large and small) was resumed An anthology of Georgian and Azerbaijanian poetry came from the press. The Kirghiz national epic, *Manas*, was published in a splendid edition.

Novels and Tales. The most successful novel of 1946 was Alexander Fadayev's *Young Guard*. Critics had high praise for this excellent piece of work —a characteristic example of socialist realism. Based on historical material, *Young Guard* is genuinely fine literature that ennobles and educates the youthful reader. The second success for 1946 was Vera Panova's tale, *Fellow Travelers*, a touching story of the staff of a hospital train. *Greetings from the Front*, a tale by Valentine Ovechkin, was warmly welcomed It reveals talent and originality in its presentation of the Soviet citizen at war, his inner world, emotional experiences, his longing to return to peacetime work.

Tale of a Real Man by Boris Polevoi was one of the successes of 1946 and found a wide circle of readers. The writer is well known as a war correspondent in the U.S.S R. This book is about a disabled airmen whose hatred of the enemy and whose eagerness and will to live to be of use to his people were so strong that they overcame all obstacles. He was the pilot who had lost both legs in battle but by sheer willpower succeeded in getting back to his regiment and flying and taking part in air battles. He won the highest award. The tale carries conviction inasmuch as it is not invention but is based on fact.

The new novel, *First Joys* by Konstantine Fedin, one of the best of contemporary Russian writers, appeared in 1946. Other books that should be mentioned here are T. Velednitsky's *Sun in the East*, about the sufferings of the Jews in the ghetto; Pavel Feodorov's *Raid*, about General Dovator, cavalry hero of legendary renown; Vsevolod Ivanov's *At the Taking of Berlin;* A. Antonovsky's and B. Cherny's story *Angel of Peace*, about the collapse of the German piratical raids and their advancing policy in the Caucasus; Victor Nekrassov's *Stalingrad*, story of the battles on the Volga by a man who took part in them; more of Pavel Bazhov's stories based on the folklore of the Urals.

In addition to books by Soviet authors, translations of foreign authors, among them Erskine Caldwell and Louis Aragon, appeared. Publication of classics of Russian and foreign literature went on as intensively as before; the total printings of Soviet editions of M. Gorky's works reached 42,000,000 copies.

David the Builder, a trilogy on the history of Georgia by K. Gamsahurdi, was published in Tbilisi. A new contribution was made to Kirghiz literature by Saldibekov who wrote the novel *Temir*. In Estonia A. Antson completed his novel *Victory*. *Abai* by Mustar Averov is one of the first Kazakh novels. It should be explained that until recent times novels in prose were almost unknown in the literature of Central Asian peoples. The predominant genres were and remain lyric poetry and epics; an important place is taken by the improvisations of popular bards. Averov's novel is built around the life of the founder of contemporary Kazakh literature, Avai Kunanbayev, poet and educator.

Among historical novels mention must be made of *Baranov's Island* by I. Kratt, an account of the Governor of the Russian colony in Alaska at the end of the 18th century, and *Raven of Yukon* by S. Malkov.

Drama. Close attention was paid to questions of the drama and theater in 1946. Plays from the repertory of classics and some by foreign authors were performed in 1946. Soviet theaters staged the new plays *Under the Chestnuts of Prague*, Simonov's drama of the Slav's struggle against the fascist invaders, *Old Friends*, A Malyugin's play on Soviet youth, *Far from Stalingrad*, A. Surov's drama of the heroism of daily work on the Soviet home front. Margarita Aliger's poetic *Tale of Truth* is performed at many theaters. *Victors*, B. Chirskov's play about Soviet commanders who directed the Stalingrad operation, was a success. A. Jakovson, Estonian, is the author of the play *Life in the Citadel* which awakened an animated response among the intelligentsia and made a stir in the Baltic Republics.

The sufferings and heroic struggle of the Jews confined by the fascists in the ghetto are shown by the Jewish poet and dramatist Perets Markish in his play *Belovethskaya Forest Sanctuary*. Alexander Korneichuk, Ukrainian playwright and Member of the Academy, wrote two plays in 1946, the comedy *Come to Zvonkovoye* and *Dream*. Villis Lacis, Latvian author, wrote *Island Lighthouse*. Konstantine Simonov finished his play on America, *The Russian Question*.

VLADIMIR F. SHISHMAREV.

SPAIN. A state of southwestern Europe. Capital, Madrid.

Area and Population. Area, 196,607 square miles, including the Balearic and Canary Islands. The population on July 1, 1944 was 26,761,902 (26,491,166 in 1943). Vital statistics in 1943 showed 622,952 births, 338,718 deaths, 163,768 marriages. On July 1, 1944, the population of the chief cities was estimated as: Madrid, 1,140,621; Barcelona, 1,108,961; Valencia, 508,072; Sevilla, 347,997; Zaragoza, 266,483; Málaga, 258,598; Murcia, 210,617; Bilbao, 208,347; Granada, 171,036, and Córdova, 146,993.

Government. As a consequence of the civil and semi-international war that ended in 1939 the Spanish Republic established in 1931 was replaced by the dictatorship of Generalissimo Francisco Franco as "Caudillo" of the Empire, Chief of the State, Commander of the Armed Forces and Head

of the "Falange Española," the government party. The political group backing Franco's government includes, besides the Falange (Fascists), the Carlists (Monarchists), the Clericals and the Monarchist supporters of Prince Juan de Borbón, as well as some small independent groups of the landed aristocracy and moneyed élites. All the political parties were outlawed. Franco has exercised his power either directly or through his cabinet, or through institutions controlled by him. This year, with the purpose of appeasing the UN, Franco has tried to appear before the world with a veneer of democracy.

Events, 1946. To consider the principal political events of the current year, it is necessary to consider not only the activities of the group controlling the political power within Spain, but the efforts of the two other groups trying to overthrow Franco's dictatorship. These are the Monarchists, grouped around Prince Juan de Borbón, who now hope to remove Franco, although they have lent him their support up to now; and the Republican Government in exile, which represents the legitimate government displaced in 1939 by Franco's insurrection, with the aid of the Fascist forces of Hitler and Mussolini.

At the beginning of the year, the "evolution" idea, by means of which the Franco regime was to yield the power to a monarchist government, was still strong in the Spanish diplomatic circles. (See YEAR BOOK 1945, p. 566.) Lausanne, residence of Don Juan de Borbón, son of Alfonso XIII, last King of Spain, was the center of diplomatic speculation. It was reported that the pretender to the throne had a series of talks with José Antonio de Sangroniz, an old friend of Franco's and an important collaborator during the uprising of 1936. Undoubtedly, the plan was upset by the announcement made by England and the United States that they were willing to accept the French proposal to bring the Spanish case before the UN. No details were given, but the indications were that the three governments were going to clarify their diplomatic status with Spain The Republican Government in exile had little faith in this solution, and their spokesman disagreed with the British Foreign Minister, who feared that any pressure brought on Franco would strengthen the reactionary forces around him. Early in January, Franco continued with the pretense of democracy and announced a restricted municipal election, and the lifting of the censorship, to be substituted by a "gentlemen's agreement" with the director of his controlled press. He also tried to win back the good will of the Jews, whom he had oppressed during the early years of his administration, by promising the Jewish World Congress that he would authorize the opening of synagogues in Madrid and Barcelona, and receive two thousand Jewish orphans in Spain. This latter offer was not accepted.

The Minister of Foreign Relations, Martin Artajo announced that he had successfully completed negotiations with the Italian government by which the Spanish Government would pay Italy $250,000,000 as the price of the armaments given by Mussolini to Franco in order to defeat his own people. At the beginning this debt was set at $1,000,000,000 and the Caudillo was paying it regularly, but when the Allied troops invaded Italy, he stopped the payments, and made the bargain with the free government of Italy. This is an acknowledgment to the world and to the UN of the help given by Fascist Italy to Franco Spain. As evidence of the political climate in Spain at the beginning of the year, it is curious to note that on New Year's Day, members of the underground movement set a huge flag of the Spanish Confederation of Labor on a church tower in Barcelona. It took several hours for the fire brigade to climb the tower and get the flag down, to the delight of the noticeably silent onlookers.

On January 22, the United States State Department announced the approval of the sale of five surplus C-47 transport planes to the Iberian Airlines, which is owned mostly by the Government (Franco's). The sale was made by the office of the American Liquidation Commission in Paris to a Spanish purchasing commission, and it also covered the necessary equipment for the improvement of the International Airport at Madrid, to be used by American planes in their foreign operations. The State Department explained that the planes sold were not considered military planes.

Some time later, the stability of the Franco Government was shaken by a motion carried by the French National Assembly and backed by the three most important French parties, congratulating the French government on the proposal made to Great Britain and the United States that diplomatic relations with the Franco Government be discontinued

In spite of Franco's democratic play-acting for foreign benefit, within the country he continued his suppression of democratic activities and execution of liberal leaders. Among the imprisoned were Santiago Alvarez and Sebastian Zapiraín, who fought with the French underground against the Nazis before joining the movement for the liberation of their own country. Fifteen Spaniards, accused of being Communists, were tried in Madrid, among them Crisanto García Grande, who had also fought in France with the Maquis. Ten were sentenced to die. As a result of fear that the UN might intervene, the accused were charged with crimes against the life and property of Spanish citizens and not with political crimes.

Early in February, the Portuguese government announced officially that Juan de Borbón would be permitted to come to Portugal, and was going to reside in Cintra with friends The Franco press protested against the granting of visas to the Pretender. However, observers were sent to Lisbon, among them the rightist Gil Robles, to try to contact the prince.

Another incident connected with diplomatic authorizations was the permission given by French Premier Gouin to the Spanish Government in exile to reside in French territory. There was a series of events which, together with this, made Franco's position more difficult. The first was the motion approved by the Legal Committee of the UN, following the proposal of the Panamanian delegation, to invite all the nations of the world to send copies of their international treaties to the Committee, specifically excluding all Fascist countries, Spain among them. Another was the motion unanimously approved by the Executive Council of the American Federation of Labor, asking the United States State Department to sever relations with Franco and to recognize Giral's government. William Green made the following statement: "This resolution will immensely hasten Spanish evolution toward democracy. The moment is very important, especially when Argentina is controlled by Fascism, and it is urgent to establish relations of solidarity between the Latin American democracies and Spain."

The United Nations kept pressing Franco to deliver the Nazis in his territory, and the Caudillo, following his policy of appeasement, actually sent

twenty-three of them to Nuremberg to be tried, among them Hans Thomsen, who was said to be the chief of the Nazi party in Spain. Nevertheless, the less known German agents stayed on in Spain, unmolested by the police. Some of them have been incorporated by Franco into his Secret Police and Foreign Legion. The Vichyite Ministers, Gabolde and Abel Bonnard, have had better luck, for since they were claimed by France and not by the UN, Franco has refused to yield them. A similar policy was followed with Leon Degrelle, the Belgian Fascist, who has been living peacefully for more than a year in San Sebastián.

The publication by the United States State Department of the *Blue Book* on Argentina was a serious blow to Franco in mid-February. In addition to the evidence of the friendly relations between Spain and Argentina, the *Blue Book* revealed the offer made by Eduardo Aunós, chief of the Spanish Economic Mission in Argentina in 1942, to sell the Argentine government German arms and ammunition Franco's press, especially *ABC, Arriba, Informaciones,* and *El Pueblo* were instructed to deny the charges, which they did, combined with bitter attacks against Spruille Braden. Officially, Franco's government was more cautious and only hinted that Aunós, if he had made the offer, had done so as a private individual and not as a representative of the government.

In the same month, the official Spanish press published that there were strikes in Barcelona, in the textile and metal industries. The Governor of Barcelona announced the successful termination of the strike, involving more than 150,000 workers. The news given out after the strike indicated that Franco's government was not as willing to use force against the workers as in the past, and had been forced to accept the workers' demands and even to pay their wages during the strike. Apparently, the underground organization of the Unión General de Trabajadores (UGT) and Confederación General de Trabajadores (CGT) was still functioning beneath the false vertical syndicates created by Franco.

At the end of February, the Loyalist press declared that the monarchist intrigue among the officers of the army had forced Franco to deport General Alfredo Kindelán, who had been one of his staunchest supporters. Early in March it seemed that the Spanish problem was reaching a crisis, due to the execution ordered by Franco, of ten Spanish Loyalists who had served with the underground forces in France. Public opinion in France by means of parades and public meetings protested violently. In Paris, there was a meeting at the Vélodrome d'Hiver, parades in front of the Spanish Embassy; and the French Government closed the frontiers with Spain, sent an energetic note to the American and British Governments insisting on a solution to the Spanish problem; and announced their intention of bringing the matter before the Executive Council of the UN. Franco, in retaliation, also closed his frontier with France, and moved his faithful Moorish troops to the border.

Public opinion in the United States was also upset by the Spanish situation, and in the Loyalist circles, there was a rumor of an American declaration in favor of a joint statement with England and France, favoring a democratic government in Spain.

The British Government announced on March 2 that it favored the joint declaration, and that the Laborite Government was considering the French proposal to bring the case before the UN. The Caudillo immediately held a meeting of his Council of Ministers, and made an appeal to the people of Spain to support his administration and defeat the campaign against him, which he called a Communist plot, instigated by Russia. He reproached France, with which he claimed he had practiced a "good neighbor" policy, by remaining "neutral" during the Nazi occupation. Franco conveniently forgot that he was dickering with Hitler for a piece of French territory, and that Hitler turned over to him a number of Republican refugees. Franco ended by accusing the French government of trying to interfere with the internal affairs of Spain.

Public opinion was so strong against Franco, even in the United States, that Cardinal Spellman, who had announced his intention of visiting Spain on his return from the Vatican, refused to participate in any official ceremony offered by the Spanish government during his brief stay there.

At the end of the month, the international situation looked rather more favorable to Franco, because the British and American governments announced that they did not consider it necessary to bring the Spanish case before the Security Council of the UN, basing their decision on the fact that, according to their knowledge, it was not a threat to world peace. Nevertheless, the United States asked the French Government to submit the case to the Security Council if they had any evidence to the contrary. This gave Franco courage to make more serious accusations against France, claiming that the government of Goum was organizing, with Communist aid, a school in Toulouse to train special saboteurs, to be smuggled across the Spanish border, to attack his regime.

On April 29, and after long debates, the Security Council, following an Australian proposal, created a Sub-Committee to investigate the Spanish case. The Committee accepted the Polish proposal to set a dead-line of May 30 for a decision. Members of the Committee were the delegates of Poland, Australia, China, Brazil, and France. The Mexican delegate to the Security Council, together with the Polish and Russian delegates, said the only decision the Sub-Committee could reach was the severance of diplomatic relations with Franco Spain, and Gromyko lamented the unnecessary delay caused by the investigation. Immediately, the Sub-Committee began to receive numerous documents accusing Franco, among them one captured by the Russians during the battle of Berlin, in which Franco promised to attack the Allied Expeditionary Forces in North Africa in exchange for supplies and ammunition to be furnished by Germany.

On May 14, while the investigation was going on, Franco inaugurated the second meeting of his Cortes (Parliament). The Acting President was Esteban Bilbao, ex-Carlist, who denied that the Spanish Government was a dictatorship, because in the Cortes "all the parties were represented," and accused the victorious Allied Nations of meddling in the domestic affairs of other countries. It was the only hint given in the Cortes of the international problem faced by Spain. The speaker stressed the difference between Nazism and Falangism, which was that the Nazis attacked Catholicism and the Jews, while Falangism had never done so.

At the end of May, the Sub-Committee of the UN in charge of the Spanish case released some of the reports received from members of the Organization. Among them it is worth while to mention the Norwegian one which pointed out that Norway maintained no diplomatic relations with Franco and favored energetic action aimed at the restoration of democracy in Spain. The United States State Department presented a report that can be summarized as follows: Franco is in no military

tion, where it was said that Franco's regime was a menace to world peace. On October 24, Trygve Lie, the General Secretary of the UN, read in a report to the Assembly, that as long as Franco remains in Spain, he will be a source of trouble to the founders of the UN. The Belgian delegate, Van Langenhov, also insisted that the Spanish problem be considered by the Assembly. The American and British delegations only hoped that the Assembly would find a solution. The Spanish Embassy voiced their disapproval of Lie's attitude, and the press in Madrid hinted that Lie, as Secretary General, should not have taken a partial position with regard to Spain. On October 26, the delegations of Norway and Chile presented motions, asking for a discussion and solution of the Spanish case. Norway demanded a definite date, and the Chilean delegate insisted that it was not a case of intervention, because dictatorial regimes cannot be dealt with on equal bases with democratic governments. The intermediate position of the British was much commented upon. In the Congress of trade unions at Brighton, nine hundred delegates almost unanimously protested against the vacillating attitude of the Laborites. On the other hand, the Government appeared to be still interested in the situation, and in the House of Commons, two members reported on recent trips to Spain. They said Franco's methods were repulsive, and that the workers and younger generations desired to overthrow him, but added that they both feared and wished to avoid civil war Late in October the case was once more the subject of deliberation in the Assembly of the UN. Many of the delegates of the small nations demanded that the case be attended to without delay. The Norwegian delegate, Lange, said that something should be done to help the democratic forces in Spain to recover their lost liberties. An agreement was reached to remove the case from the agenda of the Security Council and present it to the General Assembly. This plan was accepted by Dr. Giral in a private conference with the Russian delegate. Molotov, in the October 30 meeting, maintained that the Assembly should take immediate steps to discuss the question, but this was not possible because, according to the regulations, before any new business can be discussed in the Assembly, it must be placed on the agenda in advance. The Cuban and Venezuelan delegations said unofficially that they had special plans with regard to the problem. The Cuban Ambassador indicated that Franco should abandon the government and convoke general elections to be supervised by an international commission composed of Latin American nations.

Belgium, Czechoslovakia, Denmark, Norway, and Mexico proposed that the Spanish problem be discussed by the General Assembly. The Polish delegate entertained two motions, the first one asking for the severance of relations with Franco, and the second soliciting the exclusion of Spain from any organism directly or indirectly connected with the UN. Later the Security Council voted the Spanish case off its agenda in order to open the way to the discussion before the General Assembly. The Russian delegate explained his vote saying this was with the understanding that the Assembly would reach a quick and satisfactory solution. In the following meeting of the UN Assembly, nothing was discussed, but much time was devoted unofficially among the delegates to the problem of Franco. The Cuban delegation continued to insist on the formula of Franco's resignation and a plebiscite under the supervision of a committee of Latin American nations. United States Under Secretary of State Acheson, interviewed, repeated that the American Government disapproved of Franco, but believed that any international action would cause civil war, and that any change of government should be brought about by the Spanish people themselves. Dr. Giral stated he did not believe in the feasibility of the Cuban plan, and presented to the Secretary of the Assembly a document asking that the UN should take rapid and adequate measures to stop the economic and political help given to Franco by some members of the Organization, which in his opinion constitutes a violation of the agreements made in San Francisco and London. Meanwhile, the Caudillo, on November 12, stated to an Associated Press correspondent that the isolation of Spain would cause divisions among the members of the UN, adding that Spain, come what may, would always be backed by the Catholics of the entire world. At the questions asked him by the correspondent as to whether he was planning to convoke an election, he answered: "The provocations from abroad and the international attacks do not make this an opportune moment to hold an election." He added that he was not interested in joining the UN until the heated controversies caused by the war died out. In the first week of December, United States delegate Tom Connally proposed to the UN Assembly adoption of a resolution urging Franco to surrender his powers "to a provisional government, broadly representative of the Spanish people and committed . . . to the prompt holding of an election."

On December 12, the UN Assembly approved a resolution recommending that all members recall their ambassadors from Madrid. The resolution also provided that if the Franco regime remained in power, the Security Council should consider "adequate measures" to remedy the situation, and that the present Spanish government should be barred from membership in all international agencies connected with the UN.

This resolution was voted 34 to 6. Those opposing the move were: Argentina, Costa Rica, Dominican Republic, Ecuador, El Salvador, and Peru. Abstentions included Afghanistan, Colombia, Canada, Cuba, Honduras, Lebanon, the Netherlands, Arabia, Syria, Turkey, and South Africa.

So the year ended with this long-fought resolution, considered by some delegates toothless and inadequate.

Monarchist Spain. Early in the year, there were still rumors about the possible solution of the Spanish case, by offering the throne to Don Juan de Borbón, son of Alfonso XIII. But in January it was disclosed that the Monarchists were divided into two groups, one formed by the exiles who insisted that Juan should make no agreement with Franco nor with the Republic, but should present himself as a champion of a conservative, democratic government; the other group was formed by the militarists who had participated in the Civil War on Franco's side, and insisted on an agreement with the Caudillo. This schism was made worse by Franco's firm attitude, indicating that he would yield to no outside pressure. There was talk of a monarchist coup d'état, organized from Portugal, and Don Juan's residence at Lausanne was the meeting-place of important members of his party. In February, the Pretender and his wife went to England and were greeted by a group of friends with a reception, at which the absence of Franco's ambassador in London was noted. Juan stayed at the Claridge, and began to prepare his trip to Portugal. While he was doing so, the Spanish press published a series of articles against Oliveira Salazar, the Portuguese

dictator, because he had authorized Don Juan to reside in Portugal. The British Government, though not preventing his stay in England, made it clear that his visit should be strictly unofficial. In February, Don Juan went to Portugal and took a house at Estoril Beach, one of the exclusive resorts. From there, he made a semi-official proclamation of forty-three points, in connection with the government that Spain should have. Among the points is one that was summarized by the Monarchists thus: "Soldiers to the barracks, and the priests to the Church." It undoubtedly indicates a marked change in the Bourbon philosophy, which has always depended upon the Church and Army for support. In Spain, 450 members of the Monarchist group published a petition to Don Juan, asking him to come to the country and take possession of the throne, vacant for the last fifteen years. Franco objected to this, immediately ordering the persecution of some of the signers. Some were dismissed from government positions, and a professor in the Franco-controlled University of Madrid was attacked by a group of Falangist students for having signed the petition

At the end of April, the political machinations of the Monarchists for a quick restoration of the Bourbons seemed doomed to failure. The hope of Don Juan was to be given the throne of Spain as a solution to the struggle between Franco and the Loyalists, with the backing of England and the United States, but when he realized that Franco would not cooperate, he turned again to the ultra-conservative group of his partisans, who began to talk of a possible restoration with army aid. Nevertheless, the opinion of the political observers in Portugal was that Don Juan had little chance, because neither the Spanish people nor public opinion the world over would accept a government of this type. Early in May it was announced that the Pretender was losing all hope of convincing Franco, and there were rumors that he had decided to give up his aspirations and go to Canada. He planned to settle in Quebec, where there is still a French nucleus of the population that admires the House of Bourbon, and spend the rest of his life as a gentleman farmer, like many of his relatives, whose ancestors once ruled Europe.

After this date, the political importance of the Monarchist party rapidly declined, once they became convinced that Franco would not give the government over to them voluntarily, and that if he were forced to resign, it would most probably be to make way for a democratic government.

Republican Spain. At the beginning of the year, the most important members of the Spanish Republican Government were in New York, among them, President Martínez Barrios, and Premier José Giral, both stating that they were planning to go to Europe, but not disclosing their destination. Giral told the press that the Republican Government of Spain was first going to use all peaceful methods in order to liberate Spain from the yoke of Franco. A few days after this statement, it was revealed that the Spanish Republican Government would make its headquarters in France, because the French Government had so authorized it. Early in February, Dr. Giral arrived in Paris, and it was rumored that Dr. Negrín was also expected for the reorganization of the Republican Government to the satisfaction of the Rightist and Leftist members. The Spanish Premier took a small room in the student hall of the Rockefeller Institution, and did his best not to attract attention. The international climate for the Republicans changed for the better when United States Secretary of State Byrnes emphatically denied in the Parisian press that the Washington Government favored the return of the Monarchy.

At the end of February, the underground Loyalist movement in Spain organized a demonstration in Madrid, despite Franco police, and some of their members cast leaflets from one of the balconies of the Gran Vía Hotel, in favor of the Republic and announcing a quick liberation of Spain. On March 12, President Diego Martínez Barrios arrived in Paris and was warmly received by the Spanish refugees, the French Government, and a throng of sympathizers with the Republican cause who followed his car to the Champs Elysées, singing *La Marseillaise* and the Republican *Himno de Riego*. Martínez Barrios contrasted his arrival in France with the one in 1939, during Daladier's administration, when he was under police surveillance, and he stated that this trip to France was the last step toward his final trip to free Spain.

In the same month, Giral's government began the process of reorganization. The political crisis of the newly-formed Republican Government looked serious, because the Socialists, who followed Dr. Negrín, the members of the Republican Left, directed by Ruiz Funes, and the Socialists of Indalecio Prieto, wanted a more thorough reorganization of the government. The situation was made worse by the resignation of Don Fernando de los Ríos, Minister of Foreign Relations, whose portfolio was assumed by Giral himself. On March 25 the Polish Ambassador in Paris presented Martínez Barrios with a document stating that the Warsaw Government was willing to cooperate in order that all the members of the UN should break diplomatic relations with Franco. This document and statement was a tacit recognition of the Republican Government.

In April Giral's Government was reorganized, bringing into it small groups of the Right and Left. The Republican Right was represented by Ossorio y Gallardo and by another member whose name was kept secret because he was residing in Spain. In spite of Franco's restrictions, he was expected in Paris, traveling in disguise Leiva, the Minister of Agriculture, did the same thing. Fulfilling a prescription of the Spanish Constitution, Giral appointed the permanent State Junta, composed of all the ex-Presidents of the Council of Ministers (with the exception of Azaña, Samper and Largo Caballero, who had died.) The Junta was therefore composed of Alcalá Zamora, Lerroux, Negrín, Cásares Quiroga, Portela Valladares, and Chapaprieta. The President of the Basque Government, Señor Aguirre, also will be a member of the Junta, as well as the head of the Generalidad Catalana, Señor Iría.

On May 6, Dr. Giral arrived in London and received as warm a welcome as the one given by France to Martínez Barrios. The day of his arrival, he conferred with the leaders of the Republican movement residing in London, and said that his only desire was that the UN should sever relations with Franco, because on that same day the underground group would overthrow the Caudillo. On May 7 the House of Commons had a secret session with Dr. Giral The Spanish Premier did not disclose what had taken place at the meeting, but it was rumored that he reported on the documents he was planning to present to the UN in connection with the totalitarian methods of the Spanish government. He mentioned only that the Franco administration utilizes 68 percent of its budget for the army and police forces.

In the same month, Rafael Sánchez Guerra,

member of the Republican Right appointed to Giral's cabinet, who had been expected since April (see above) succeeded in evading the Franco police and arrived safely in France. It was now safe to announce his name. Later in the month, the Republicans lost Ángel Ossorio y Gallardo, Minister without Portfolio and Member of the Right, who died in Buenos Aires at the age of seventy-two.

On May 22, Giral appeared again before a Sub-Committee of the British Parliament investigating the Spanish case. The purpose was to testify on the discrepancies between his report and the data in possession of the British Foreign Office. Giral explained that Franco has 840,000 soldiers, and that if the Foreign Office claims only 600,000, it has not taken into consideration the Moorish troops and the forces of the Foreign Legion, not counting over 100,000 civil guards and the armed members of the Falange.

In June, Giral's Government took another step toward the unification of the Republican forces, when he secured the backing of the Spanish Socialist Labor Party, that appointed Enrique de Francisco as Minister without Portfolio in the Republican Cabinet. During August, Hungary officially recognized Giral. By this recognition, there were ten nations with official diplomatic relations with Republican Spain, as follows: Russia, Poland, Yugoslavia, Bulgaria, Rumania, Mexico, Panama, Guatemala, and Venezuela. The Hungarian recognition has been especially painful to Franco, because the government of Budapest is composed mainly of small landowners, most of them Catholics and Rightists

Early in September, two more members of Giral's cabinet, Minister of Finance Augusto Barcia Trelles and Minister without Portfolio Alfonso Rodríguez Castelao, arrived in Paris. The only important member of the government still outside France is the Minister of Justice, Don Alvaro Albornoz, who is still in Mexico. In October, two Loyalist prisoners, members of the Republican Government, Ramon Vivero and Julio Nieto, were garrotted in Spain. On October 25, Dr. Giral visited the Flushing Meadows building where the UN delegates were gathered. He expressed his satisfaction over Trygve Lie's speech of the previous day and said he had conferred with various delegates and would present important documents to the Assembly in connection with the recent executions in Spain.

During the long debates, first before the Sub-Committee and later before the Assembly, Dr. Giral maintained that the strongest measure against Franco would be to stop all trade, so producers would be forced to sell their foodstuffs to the needy Spanish people, and at the same time Franco would be deprived of the economic help, without which he could not struggle along.

Defense. According to official reports, Spain has an active army of about 200,000 men and a trained reserve of about 1,300,000. The air force is said to be composed of 5,000 men and the same number of reserves. The above figures do not include the Foreign Legion, and there have been discrepancies with regard to the actual strength of the army The British Government and the United States State Department have disagreed with the figures produced by the head of the Republican Government in exile, Dr. Giral. (See above, *Events*) The army equipment is inadequate and obsolete, although the Spanish government manufactures some light armaments and ammunitions. According to the law, there is a two years' compulsory military service. The army is formed of eight corps on the Peninsula, and two in Morrocco, besides two units (Comandancias) in the Balearic and Canary Islands, and one independent cavalry division. The Navy has two old cruisers (Navarra and Méndez Núñez) of about 4,500 tons each; three relatively modern cruisers (Galicia, Cervera, and Cervantes) of 7,475 tons each, and the battle cruiser Canarias, of 10,000 tons. Besides these, it has twenty destroyers, four sloops and a number of lesser vessels.

Production. Agriculture is the principal economic activity in Spain. Out of the total area of the country, 14.31 percent is devoted to cereals, 2 61 percent to vegetables, 2 99 percent to vineyards, 9.51 percent to olives, 1 26 percent to root crops, 1 41 percent to industrial crops, 1 03 percent to fruits, 0.72 percent to artificial meadows and 48.68 percent to pasture. Mining runs next to agriculture. The production in order of value are coal, wolfram, potash, iron ore, lignite, anthracite, rock salt, zinc, iron pyrites, mercury, lead, and copper. Manufacture of light industrial goods is important principally in Catalonia, and fisheries have been considerably developed Chief among the forest products are cork, turpentine, and rosin.

Trade and Finance. According to the latest available statistics published in the newspaper *Arriba*, organ of the governmental party, the total imports of Spain in 1945 exceeded the exports by 105,000,000 gold pesetas According to these figures, Spain imported 2,229,589 tons of merchandise in 1945 against 2,120,788 in 1944; and exported 2,635,893 tons in 1945 against 2,518,089 tons in 1944. The report does not mention the value in gold pesetas of these imports and exports, but indicates that there was a "considerable increase in imports" and a slight decrease in exports. The official statistics for 1944 claim that the exports exceeded the imports by 17,700,000 gold pesetas

Transportation. The railway system of Spain includes 12,855 kilometers of broad-gage, while the narrow-gage railways include about 75 small private company lines with an aggregate length of approximately 3,500 kilometers Despite the continued shortage of equipment, the railroad carried a notable amount of traffic during the last quarter of 1945 and the first half of 1946. The Spanish Merchant Marine has a registered tonnage of over 1,000,000 tons.

Spanish Possessions. The area and population are shown in the table below. The Canary Islands are two provinces of Spain (Las Palmas and Santa Cruz de Tenerife) having a total of 7,496 square miles, and a population in 1940 of 680,294.

SPANISH POSSESSIONS

	Sq Mi.	*Pop*
Morrocco, including Alhucemas, Ceuta, Chafarinas, Melilla, Penon Velez, Ifni, and the Protectorates of the northern and southern zones	18,454	1,284,000
Sahara, territories of Rio de Oro, Seklia, Hanera	105,409	37,000
Guinea, including the island of Fernando Poo, Corisco, Annobon, and the two Elobeys	10,852	167,500
Total	134,715	1,488,500

(For more details on Colonial Possessions, see SPANISH AFRICA).

Education and Religion. According to the census of 1943, 42.35 percent of the adult population is illiterate. Primary education is free and compulsory, although, in fact, the law is not enforced. The educational system is controlled by the Government, under an agency named "Sindicatos de Estudios Universitarios," to which all scholars must belong. The Government claims that about 44,572 elementary schools function, with a total of nearly

three million pupils in attendance. There are 117 high schools, or "institutos" for secondary education, and twelve universities, besides fifty-eight normal schools for the training of elementary school teachers.

Catholicism is the religion of Spain, as at the end of the civil war, the Roman Catholic Church was reestablished as the state religion. The religious orders recovered their legal status, lost during the Republican era, including control and jurisdiction over cemeteries, teaching rights, and other privileges.

MIGUEL JORRÍN.

SPANISH AFRICA. The territorial possessions of Spain in Africa have in toto an area of 134,716 square miles and a population in excess of a million and a half. These territories are divided as follows:

Morocco. Along the northern shore of Morocco are five places of Spanish sovereignty, or "presidios," including Ceuta (the southern counterpart of Gibraltar) and Melilla. They have an area of 82 square miles and 145,000 inhabitants. Along the western coast of Morocco, south of Casablanca, lies the enclave of Ifni (741 square miles and 35,000 inhabitants) also under direct Spanish sovereignty. However, the most important of Spain's possessions is her Protectorate of the Northern Zone of Morocco, of which the area is 7,592 square miles and the population approximately one million. There is also a Protectorate of the Southern Zone which is larger but much less populous (area 10,039 square miles, population 12,000).

The Sultan of Morocco is nominally the sovereign within the two Spanish Zones, where he is represented by a Khalifa. In reality the administration is carried on by the Spanish High Commissioner, who is responsible to the Madrid Government and who resides at Tetuan. With the exception of some 50,000 Europeans and 13,000 Jews, the population of the Spanish Zones is Moslem and largely Arabic-speaking. The inhabitants of the Rif Mountains in the Northern Zone are very warlike and formerly gave the Spanish much trouble. General Franco used many of them during the Spanish Civil War (1936–39) as shock troops. Few educational opportunities are available for the native population.

The natives depend upon a rudimentary agriculture, grazing, and other primitive occupations. Important quantities of iron ore are mined in the Northern Zone. The Southern Zone and the Ifni territory lie virtually outside of the world economy.

Spanish Sahara. This almost wholly desert region has an area of 105,409 square miles and less than 50,000 inhabitants. Administratively this colony is under the jurisdiction of the High Commissioner of Morocco.

Spanish Guinea. This colony consists of several parts, both island and mainland, with an area of 10,040 square miles and a population of 138,797 (of which only about 1,000 are Europeans). Included in this administrative unit, which is administered by a Governor who resides at Santa Isabel, are the islands of Fernando Po, Annobon, Corisco and the two Elobeys. The continental part of the colony is by far the largest in area but is relatively undeveloped. Cocoa, coffee and lumber are the colony's principal exports.

Not included in Spanish Africa are the Canary Islands, which administratively are a part of the metropolitan country.

Events. The Franco regime in Spain continued its policy of discreetly encouraging a moderate form of Moroccan nationalism among the Moors in the Spanish Zone. For example, Moorish delegates from Spanish Morocco went to Cairo, with the permission of the Madrid authorities, in order to take part in the non-political activities of the Arab League. This policy had two advantages: (1) it allowed *el Caudillo* to pose as the friend and natural protector of his Moslem subjects, whose continued military support was as necessary in upholding his dictatorship as it had been in winning the Civil War; and (2) it annoyed the French since Moroccan nationalism was not a movement confined to the Spanish Zone. Indeed, its primary object was to "free" the Sultan at Rabat from French tutelage. The nationalist movement in the Spanish Zone was apparently closely tied with that in the International Zone of Tangier. Their leaders were in close communication, and in September they planned simultaneous demonstrations in Tangier and Tetuan. Some observers expressed the belief that this movement was becoming anti-Spanish as well as anti-French. In a statement made on November 17, Abdul Rahman Azzam Pasha, Secretary-General of the Arab League in Cairo, lumped Spain with France as powers with which the Arab states "cannot cooperate . . . as long as they occupy Arab nations in North Africa." There was also considerable anxiety that Soviet agents and propaganda might complicate the situation by espousing the Moorish cause.

ROBERT GALE WOOLBERT.

SPANISH LITERATURE. Although communication with Spain has improved somewhat during the past year, and news from the Peninsula comes in rather more freely, many gaps and uncertainties remain in all information about Spain, whether it be political or literary. Some index of literary conditions in that country is to be found in a statement made in a dispatch to the *New York Times* in September, 1946: "at least sixty-five underground papers come out more or less regularly. The most active centers of these are Catalonia and the Basque provinces . . ." Not that the underground press is to be considered a source of literature, but the necessity for the existence of an underground indicates the handicap under which both writers and publishers must function. The newspaper *ABC* of Seville has published a long list of books, mainly textbooks in science and history, which were burned in Spain during 1946. The position of the present regime in regard to literature was stated clearly in June, 1946, by the Minister of National Education, who spoke at the opening of the Book Fair on "La política del libro." After reciting the achievements of the Franco Regime in encouraging literature, restoring libraries and private collections, and setting up such literary and cultural agencies as the *Junta Central de Archivos, Bibliotecas y Museos de España* and the *Junta de Intercambio y Adquisición de Libros*, the Minister summed up the duty of the State toward literature: "to encourage the literary and scientific professions to create an atmosphere of purity and moral decorum . . . the Spanish State leaves theological and ecclesiastical questions entirely to the Church, to which all writers voluntarily submit . . . what can not be done in Spain is to defame the Fatherland, prostitute the family, corrupt youth, subvert the social order, arouse base passions, and trade in criminal fashion upon the mentality of the popular (sic) classes. Let us," he exhorted, "export books of Catholic theology and Christian morality!"

The Spanish Book Fair was held not in Madrid, as formerly, but in Barcelona, in June, 1946. The Catalogue of books exhibited there lists a total of 5,406 titles, classified according to subject and

indexed. This is not, however, by any means a list of new books, or of books published within the current year, but simply a list of those exhibited by publishers, as representative of their output. Some idea of the distribution may be gained from the following: of the slightly over five thousand titles, 519 are in medicine; 388 are in the related fields of devotions, theology, and religion; 613 in history and biography; and 889 in fiction, with only 64 titles listed under poetry, and none under drama. While it would be dangerous to interpret these figures too strictly, they would seem at least to indicate trends of popular interest. The proceeds from the sale of books at the Fair amounted to 1,750,000 pesetas. Before the Civil War the figure was regularly more than six million pesetas, even though books were then lower in price.

In the *Bibliografía Hispánica* for January 1946 there is an important summarizing article, "Statistics on the Production of Books in Spain in 1945." According to this, 4,263 titles were published in 1945. The list is broken down by subjects, as well as by towns and provinces. Barcelona, as is to be expected, had the longest list after Madrid. Of the total given above, 1,328, or more than a fourth, were translated works, 662 of which were from England or the United States. These figures bear out the impression of the previous year (See YEAR BOOK for 1945) that Spain has been publishing an unusually high number of translations and still is. This is due probably, in part, to the continuing exile of some of the most productive and creative of Spain's writers, as well as to the rigors of censorship.

The Portuguese Book Fair was held in Lisbon in May, 1946, and many Spanish publishers exhibited there. The *Fiesta del Libro* was celebrated throughout Spain on April 23, 1946, the anniversary of the death of Cervantes.

Although the combination of censorship and the exile of writers has been discouraging to the production of new books, perhaps it has operated usefully in focussing the attention of Spanish publishers and readers more and more on the glories of their own great literature of the past. Even a rapid survey of publishers' lists for 1946 reveals the number, variety, and high quality of the editions of the classics which are available now, or in preparation. It is doubtless this which Professor Allison Peers of the University of Liverpool must have in mind when he spoke, in the *Bulletin of Spanish Studies*, of the "general excellence of contemporary Spanish publishing." Noteworthy among editions of the classics is the series of omnibus volumes inaugurated some years ago by the publishing house of Aguilar, which offers in one volume the complete works of an author. These are from authoritative texts, with clear type and compact and elegant format. Among recent titles in this series are: *Obras completas de Angel Ganivet*, with a foreword by Melchor Fernández Almagro; *Artículos completos de Mariano José de Larra; Recopilación, prólogo y notas de Melchor de Almagro; Obras completas de Baltasar Gracián; Introducción, recopilación y notas de E. Correa Calderón; Obras poéticas completas de Rubén Darío; Introducción y ensayo bibliográfico del poeta Federico Carlos Sainz de Robles;* and *La novela picaresca española; Estudio, seleccion, prologo y notas por Angel Valbuena Prat* (about 1,958 pages). Espasa-Calpe has reprinted some of the *Clásicos Castellanos* which had gone out of print since it ceased publication in 1935, and has brought out a dozen new titles during the past five years. Among these were: Cristóbal Lozano's *Historias y leyendas. Edición y prólogo de Joaquín de Entrambasaguas* (these stories and legends served as source material for many romantic writers, among them Zorrilla); Esteban de Arteaga's *La Belleza ideal. Prólogo, texto y notas del P. Miguel Batallori, S.J.;* and Francisco de la Torre's *Poesías. Edición de Alonso Zamora Vicente.* Also from the house of Espasa-Calpe is the series *Colección de Crónicas Españoles,* directed by Juan de Mata Carriazo, of which six have been published. Among these are: *El Victorial,* of Gutierre Diez de Games; *Crónica de Don Alvaro de Luna; Crónica de los Reyes Católicos,* of Hernando del Pulgar.

Among other learned works, the following volumes of the *Biblioteca de Autores Españoles* have been republished: xvi (*Romancero general*); xvii (*Poemas épicos*); and xviii. *Novelistas posteriores a Cervantes.* The Spanish Academy has resumed publication of the *Biblioteca Selecta de Clásicos Españoles* with an edition of *Diálogos de la conquista del reino de Dios,* by Fray Juan de los Angeles, with an introduction and notes by Angel González Palencia. A second edition, revised and enlarged, of Valbuena Prat's *Historia de la literatura española* was brought out in 1946. A second edition of Antonio Palau's monumental bibliographical work, the *Manual del librero hispanoamericano, Vol. i A-B,* with 40,000 references in 600 pages, is promised for 1947. An appendix with indexes is to be published separately. The *Asociación de Libreros y Amigos del Libro* published in October, 1946, a facsimile of *Discursos sobre el arte del danzado y sus excelencias y primer origen* by Juan de Esquivel Navarro (Sevilla, 1624). This facsimile was distributed only to members.

A new and important series, inaugurated in 1945, is the *Biblioteca de autores cristianos* (Madrid, Editorial Católica). Already published in this series are a new edition of the Vulgate, the Works of St. Augustine in both Spanish and Latin; and the complete works of Fray Luis de León, revised and annotated by Padre Felix García, in one volume of 1694 pages. The last-named edition contains several important works hitherto not readily accessible, such as the little-read but significant *"Exposición del libro de Job."* Another interesting title in this series is *Suma poética. Amplia colección de la poesía religiosa española,* edited by José María Pemán and Miguel Herrero. "Dozens of authors are represented here who can be known to very few even by name," says Professor Allison Peers in regard to this anthology, "Scores of poems, found in no ordinary anthology, must have been dug out of *cancioneros,* or discovered embedded in ascetic treatises."

Fiction. Enough has been said to indicate that the literary world of Spain in 1946 maintained a lively interest in preserving the great works of her splendid tradition, and in making these books accessible to modern readers. The magnificence of some of these classic authors would tend to dwarf those of the present even if there were giants among present-day writers. Putting aside this perhaps unfair comparison, it still is not easy to find encouraging signs in the actual literary output of modern Spanish writers. Translations and reprints outnumber original new works. For example, of the 889 novels listed in the catalog of the National Book Fair in Barcelona, June, 1946, 254 are translations from foreign languages. The choice of writers extends to a very curious hodge-podge, including, from the English-speaking world, from which the largest number of translations appears, such widely varied authors as Florence Barclay, Somerset Maugham, Rudyard Kipling, Agatha Christie, Mark Twain,

Charles Dickens, the Brontës, Galsworthy, Scott, and Chaucer. Among these are twelve titles by Edgar Wallace. Translations of Tolstoi, Turgenev, Pushkin and Dostoevsky are listed. Among the surviving members of the generation of 1898, Azorín is represented by *La Isla sin aurora* (Barcelona, Ediciones Destino, 1944), which is described as the symbolic narrative of a poet, a dramatist, and a novelist in search of their dream island, which "reveals *el poeta de las pequeñas cosas* at his delightful best." Azorín has been awarded the *Gran Cruz de la Orden de Alfonso X, el Sabio.* In Pío Baroja's *El Caballero de Erláiz* (Madrid, Ediciones "La Nave," 1943), the setting is the Basque provinces in the 18th century, and the novel, episodic and repetitive, is valuable chiefly as the evocation of an age and a region. Published in 1946 was Francisco de Vélez's *Mis conversaciones con Don Pío Baroja, por D. Benaudalla.* Benadaulla is a *panadero,* imagined by Vélez as a friend of Baroja's in his early days; the material for the book is drawn from Baroja's memoirs, of which three volumes have been published, and the result is described as a delightful work, graceful and satirical. Ramon Gómez de la Serna, now living in Buenos Aires, has published there a new edition of an earlier work, *Seis falsas novelas* (Losada, 1945). The *Premio Africa* was awarded to Luis Antonio de Vega for his *Los hijos del novio;* of him the *Bibliografía Hispánica* says: "he is one of the novelists who has taken most seriously our African problems." Of the younger novelists, Ignacio Agustí seems to be considered the most important. Of his *Mariano Rebull* (Barcelona, Ediciones Destino, 1944) Azorín writes: "at last, we have a novelist . . . it breaks a long barren spell of over ten years." His *El viudo Rius* (Barcelona, Destino, 1945) is a powerful story of labor troubles in Barcelona; it has aroused considerable controversy in Spain.

Essays. The *Bibliografía Hispánica* devotes a long review to *España* (*Panorama de la vida spiritual*), by Victoriano García Martí; "this essayist," the reviewer says, "discusses, in an entirely subjective way, the Sebastianism and the Quixotism of our country." Eugenio d'Ors published in 1946 his *Teoría de los estilos y espejo de la arquitectura,* an important collection of essays on aesthetics, part of which was the author's paper read at his reception into the Academy. Some of these essays are autobiographical. The Casa Aguilar, in Madrid, published in August 1946 a *Novísimo Glosario* of Eugenio d'Ors, which the publishers describe as an "Antología d'orsiana," with an index and notes.

Poetry. In addition to the important anthology previously mentioned in the series *Biblioteca de autores cristianos,* another noteworthy anthology is the *Canciones populares de la Edad de Oro,* edited with an introduction by Santiago Magariños (Barcelona, Lauro, 1944), which offers a substantial collection of Spanish songs of the 15th, 16th, and 17th centuries. Several new volumes have been published in the Adonais series, which includes contemporary Spanish poets and translations of foreign poetry; translations of Byron's poems, by María Alfonso, and of Whitman, by Concha Zardoya, have appeared recently in this series. Espasa-Calpe published in June, 1946, the *Poesías completas* of Antonio Machado. *Kasida del olvido,* by Joaquín Romero Murube, curator of the gardens of the Alcazar in Seville, "has captured something of the spirit of the Andalusian Moorish kasidas in Castilian romances." A translation of T. S. Eliot's poems by Dámaso Alonso, the scholar and poet, has been brought out in Madrid. Dámaso Alonso's *Hijos de la ira,* Madrid, 1944, is considered by Aubrey Lumsden as the poet's "most significant poetic contribution to date." Also published in 1944 was his *Versos plurimembres y poemas correlativos.* Góngora, whose kinship with modern poetry is clear, seems to be enjoying a continued revival; a selection of his poems, *"Las mejores poesías de Góngora,* edited with an introduction by M. R. Blanco-Belmonte, was published in Madrid during the year.

Plays. An examination of the works listed under the heading Theater and Cinema reveals much the same situation as that already noted in Fiction: a large number, relatively, of translations, new editions of Spanish classics, and very few new plays. The translated works include a "very free adaptation" of the *Antigone* of Sophocles, Schiller's *William Tell,* and three plays of Oscar Wilde. Among new editions of the classics are Gil Vicente's *Auto da Barca do Inferno,* edited by Charles David Ley; selections from the Plays and Poetry of Gil Vicente, with an Introduction and notes by Concha de Salamanca (Aguilar); the *Comedias Religiosas* of Calderón (Espasa-Calpe), and a one volume edition of the *Pasos* of Lope de Rueda and the *Entremeses* of Cervantes (Editorial Ebro).

Anniversaries. Two biographies of Goya appeared ahead of time in honor of the bicentenary year of his birth: *Goya,* by Ramón Gómez de la Serna (Madrid, La Nave, 1945); and *Vida de Don Francisco Goya y Lucientes,* by Fernándo Castán Palomar (Barcelona, Juventud, 1944). The three hundredth anniversary of the death of Quevedo was commemorated by a series of lectures in the Academy of Jurisprudence delivered by the Duke of Maura on "Quevedo, hombre político." The Spanish Academy held a ceremony on the same anniversary, at which Don Agustín G. de Amezúa read a discourse entitled "Las Almas de Quevedo," and the sixty-seven year old poet Eduardo Marquina recited a poem dedicated to Quevedo. On April 23, the anniversary of the death of Cervantes, the city of Alcalá de Henares celebrated a requiem mass for his soul in the *Santa Iglesia Magistral,* the expenses of which were borne by the municipal government. Also in honor of Cervantes, the National Library arranged an *Exposición cervantina* which occupied four rooms, and must certainly have been a delight to the Cervantophiles who were fortunate enough to see it. Graphs showed the story of the 1,450 editions of the Quijote, and a large map traced the world-wide wanderings of the Knight of La Mancha. The walls were hung with tapestries of scenes from the novel, and one room was a reproduction of Don Quixote's library, with a copy of the *Amadís* open on the table.

Academy Awards and Other Prizes. On January 10th, 1946, Luis Martínez Kleister, the poet and novelist, was admitted to the Academy in the place of Diez-Canedo. On January 20th the Marquis of Luca de Tena, playwright and son of the first director of *ABC,* was received into the Academy in the place of Joaquín Alvarez Quintero. The Bulletin of the Academy says of him "he merits a pre-eminent place in the modern Spanish theater," but none of his published works is listed for this year. On February 10 Narciso Alonso Cortés, the well-known teacher and scholar of Valladolid, was received in the place of Ricardo León (died in 1943).

The *Premio Fastenrath* (for poetry, drama, fiction) for 1945 was awarded to Juan Antonio Cabezas for his play *Rubén Darío.*

The Premio Manuel Llorente for 1945 was awarded to Don Lope Mateo for his poetry *Desde tus claras almenas.*

Jacinto Benavente, now living in Argentina, has been elected a corresponding member of the Argentine Academy of Letters. He plans to publish his memoirs in Buenos Aires.

AGATHA B. and NICHOLSON B. ADAMS.

SPELMAN FUND OF NEW YORK. The Spelman Fund was incorporated in 1928 with a principal of $10,000,000. The Trustees of the Fund have power to use the principal as well as income to carry out its purposes.

During 1946, the Fund continued its program directed at the improvement of methods and techniques in the field of public administration. Support was extended to public and quasi-public agencies engaged in disseminating information regarding advances in administrative practice, in developing new types of organization and operating methods, and in actually installing administrative improvements in governmental agencies.

The Chairman of the Board of Trustees is Charles E. Merriam. The offices of the Fund are located at 783 Fifth Avenue, New York 22, New York.

SPICES. The year 1947 looks brighter for the spice trade than any year since before the War. Hard hit by the lack of imports from both Europe and the Far East, the spice industry in the United States has had to use its utmost ingenuity to find supplies at home and in countries relatively unaffected by shipping blockades and submarine activity. Early in the War the American Spice Trade Association sent a representative of a special committee to Latin America to survey the situation there, and to arrange for the increased growing of certain herbs and spices for export to the United States. Central Europeans who had settled in Latin America had long been growing such spices as thyme, marjoram, oregano, paprika, coriander and poppy seed, as well as anise

In the fall of 1946 all spices which had been under Government control during the War were decontrolled—among them pepper, cinnamon (cassia), nutmeg, and mace. Other spices were considered to be in good supply, but it was certain that of all the spices pepper would remain acutely short, perhaps for as much as five years, despite decontrols. The decontrol order permitted American spice traders to bid for what pepper was available at the world price. Under OPA regulations there was a ceiling of 15¢ a pound on black pepper and 23¢ a pound on white. When controls were taken off at the end of August, black pepper jumped immediately to 68¢ a pound and white pepper to 65¢ a pound—the first time in history, so far as it is known, that white pepper undersold black pepper. Normally white pepper costs more because it goes through a decorticating process when the shell of the black peppercorn is removed, leaving the white center which becomes the white pepper of commerce.

It was announced early in 1946 that the Department of Agriculture had been empowered to purchase nine million pounds of Indian pepper, and it was finally determined late in 1946 that of this perhaps some four million pounds had actually been obtained. The arrival of 250 tons in October was expected to give some slight relief. However, such pepper would go first to the meat packing industry from the spice grinders and very little of it was expected to reach the consumer in ground, or whole form.

The normal, prewar consumption of pepper in the United States amounted to 14,000 tons per year, or about half a pound per capita; and the world consumption was approximately 60,000 tons. With the Netherlands Indies still unable to harvest and ship her pepper because of unsettled domestic conditions, it was believed that in 1946 the American consumer instead of having half a pound of pepper per person, would be reduced to about a sneeze of pepper per person.

As a result of domestic spice-growing in the United States during the war, American mustard has become well established and the crop undoubtedly will continue to be an important one in such states as Montana, Washington, and California. Washington State sage-growers, who jumped into the breach during the severe shortage of sage, announced firmly that they would continue to produce the crop which, some experts said, compared very favorably with the finest Dalmatian sage.

As a result of war shortages, some synthetics came on the market. The spice grinders emphatically stated that they had abandoned the use of synthetic spices, principally cinnamon and nutmeg, as soon as the natural product was again available in quantity. Synthetic peppers made on a base of cereal, ground nut shells, plus various flavorings such as oil of capsicum, is beginning to disappear with the arrival of more true pepper.

A taste for new spices—new to the American palate—has certainly arisen as a result of the war. Chili and curry powder were very widely used by the Army during the war and by homemakers, who found these spices admirable stretchers for short proteins. Their use has spread all over the country and they ceased to be just regional favorites. Oregano, Mexican sage, which had been very widely used by itself and in poultry seasonings during the shortage of Dalmatian sage, had become well established with the consumer as an herb by itself. Anise from Mexico, Chile, Portugal, and elsewhere became popular generally for the first time here as a flavoring for sweets—especially fruit desserts. It had been very widely recommended during the cinnamon shortage. And allspice, which tastes like a combination of cinnamon, cloves, and nutmeg, and which comes only from Jamaica in the British West Indies, is firmly established with the American housewife. Previously it was far better known among English cooks, than among those in the United States.

A survey taken of the spice consumption here, during the war, showed that despite the shortage of many spices, retail spice sales were at sixty million dollars annually, and that consumers were using 18 1 percent more spices than before the war. The survey indicated a national rise in the regular use of chili powder, poultry seasoning, red pepper, celery salt, cayenne, curry powder, celery seed, onion salt, garlic salt, and mixed whole spices. Despite a shortage of sage at the time the survey was done, this herb was reported in more than a third of the homes queried Americans were found to be spending about 1¢ a week per person—$1 46 per year per family for spice supplies. This figure is expected to rise through the availability of more spices, now that world trade has been re-established. There is no doubt about the fact that Americans have become seasoning-conscious as a result of having to "make do" with the available foods. With the rising cost of food, spice consumption is expected to rise among lower income groups, especially, who in using more fish, cheaper cuts of meat, more dairy products and legumes, will depend upon proper seasoning to make these attractive to the family.

AMY VANDERBILT.

STATE, U.S. Department of. In 1946 the Department of State engaged in manifold activities directed toward laying the foundations of a firm peace and promoting the evolution of the United Nations as an effective instrumentality of international cooperation.

The Department arranged for and participated in American representation at a number of international conferences tending to fulfill these objectives, including the Paris Peace Conference and the meetings of the Council of Foreign Ministers at Paris and New York. In addition the Department of State coordinated American participation in meetings pertaining to the organization or continued functioning of organs and affiliates of the United Nations, including the General Assembly, the Security Council, the Economic and Social Council, the Atomic Energy Commission, the proposed International Trade Organization, the World Bank and Fund, the Food and Agriculture Organization, and the proposed World Health Organization.

Secretary of State James F. Byrnes, bending every effort to bring about agreement upon the peace settlements as rapidly as possible, was obliged to go abroad on several occasions, during which intervals Under Secretary Dean Acheson was Acting Secretary. Congress created the office of Under Secretary of State for Economic Affairs, and Assistant Secretary William L. Clayton was appointed to that post. Benjamin V. Cohen continued as Counselor of the Department. Willard L. Thorp took over the post of Assistant Secretary for Economic Affairs vacated by Mr. Clayton. Major General John H. Hilldring was appointed Assistant Secretary for Occupied Areas. James Clement Dunn was appointed Ambassador to Italy, leaving vacant the post of Assistant Secretary for European, Far Eastern, Near Eastern and African Affairs. Donald S. Russell, William Benton, and Spruille Braden continued as Assistant Secretaries of State. Charles Fahy was appointed Legal Adviser to take the place left vacant by the naming of Green H. Hackworth to the International Court of Justice. Special Assistant Leo Pasvolsky resigned, effective March 15, 1946. William L. Langer was appointed Special Assistant in Charge of Research and Intelligence, later he resigned and was replaced by Colonel William A. Eddy.

The first major reorganization in the Foreign Service of the United States since 1924 was authorized by the Foreign Service Act of 1946, which established a new promotion and retirement system, provided for additional training and re-Americanization of Foreign Service officers, and codified previous legislation. During the year the first American Minister to Yemen was appointed and the diplomatic missions at New Delhi and Washington and at Cairo and Washington were raised to the rank of embassies.

The Office of Inter-American Affairs was terminated by Executive order, and the liquidation of activities in connection with the terminated office was put under the general supervision and control of the Secretary of State. Several of the offices of the Department were reorganized during the year in the interest of greater efficiency.

The organization of the Department as of December 1, 1946, consisted of the following offices, divisions, et cetera:

1. The Secretary of State, the Under Secretary of State, the Under Secretary of State for Economic Affairs, the Counselor of the Department, six Assistant Secretaries of State, the Legal Adviser, five Special Assistants to the Secretary, three Assistants to the Secretary, and the Secretary's Staff Committee with its Central Secretariat.

2. The Assistant Secretary for European, Far Eastern, Near Eastern and African Affairs administers three offices, namely, the Offices of European Affairs, Far Eastern Affairs, and Near Eastern and African Affairs, consisting respectively of the Divisions of British Commonwealth Affairs, Central European Affairs, Northern European Affairs, Eastern European Affairs, Southern European Affairs, Western European Affairs, and Research for Europe; the Divisions of Chinese Affairs, Japanese Affairs, Southeast Asian Affairs, Philippine Affairs, and Research for Far East; and the Divisions of Near Eastern Affairs, Middle Eastern and Indian Affairs, African Affairs, and Research for Near East and Africa.

3. The Assistant Secretary for American Republic Affairs administers the Office of American Republic Affairs, consisting of the Divisions of Mexican Affairs, Caribbean Affairs, Central America and Panama Affairs, Brazilian Affairs, North and West Coast Affairs, River Plate Affairs, Research for American Republics, and Special Inter-American Affairs.

4. The Assistant Secretary for Economic Affairs administers five offices, namely, the Offices of International Trade Policy, Financial and Development Policy, Economic Security Policy, Transport and Communications, and Foreign Liquidation, consisting respectively of the Division of Commercial Policy, International Resources Division, Petroleum Division, and Division of International Labor, Social, and Health Affairs; the Divisions of Financial Affairs, Investment and Economic Development, and Lend-Lease and Surplus War Property Affairs; the Divisions of Economic Security Controls, German and Austrian Economic Affairs, and Japanese and Korean Economic Affairs; and the Aviation Division, Shipping Division, and Telecommunications Division.

5. The Assistant Secretary for Public Affairs administers the Office of Public Affairs and the Office of International Information and Cultural Affairs, consisting respectively of the Divisions of Public Studies, Public Liaison, Historical Policy Research, and Publications; and the International Press and Publications Division, International Broadcasting Division, International Motion Pictures Division, Division of International Exchange of Persons, Division of Libraries and Institutes, Area Division I (Europe), Area Division II (Near East and Africa), Area Division III (Far East), Area Division IV (American Republics), and Area Division V (Occupied Areas).

6. The Assistant Secretary for Administration is responsible for four offices, namely, the Offices of Departmental Administration, the Foreign Service, Controls, and Budget and Finance, consisting respectively of the Divisions of Coordination and Review, International Conferences, Protocol, Departmental Personnel, Management Planning, Central Services, Communications and Records, and Cryptography, and the Central Translating Division and Presentation Division; Divisions of Foreign Service Planning, Foreign Service Personnel, Training Services, Foreign Reporting Services, Foreign Service Administration, and Foreign Buildings Operations; the Passport Division, Visa Division, Special Projects Division, Division of Foreign Activity Correlation, Division of Investigations, and Munitions Division; and the Division of Budget, Division of Finance, and UNRRA Division.

7. The Assistant Secretary for Occupied Areas is responsible for the coordination of State Depart-

ment policy with respect to all occupation matters and is the Department's member and chairman of the State-War-Navy Coordinating Committee.

8. The Legal Adviser is responsible for all matters of a legal character concerning the Department. His Office also includes three Assistant Legal Advisers (for Economic Affairs, for Special Legal and Public Affairs, and for Administration and Foreign Service) and a Treaty Branch.

9. The Special Assistant to the Secretary in Charge of Research and Intelligence administers the Office of Intelligence Coordination and Liaison and the Office of Intelligence Collection and Dissemination, consisting respectively of the Intelligence Coordination Division, Division of International and Functional Intelligence, and Division of Map Intelligence and Cartography; and the Acquisition and Distribution Division, Reference Division, and Biographic Information Division.

10. The Special Assistant for International Organization and Security Affairs administers the Office of Special Political Affairs, consisting of the Divisions of International Organization Affairs, International Security Affairs, and Dependent Area Affairs.

STATE LEGISLATION. Eleven legislatures met in regular session in 1946, including those of Georgia and Missouri whose 1945 sessions extended into 1946 while the legislatures were engaged in implementing new constitutions, a long and difficult legislative task. In 1946 the legislatures of the following states met in regular session: Kentucky, Louisiana, Massachusetts, Mississippi, New Jersey, New York, Rhode Island, South Carolina, and Virginia. During the year eighteen legislatures met in special session with Arizona, New Jersey, and Ohio holding more than one special session. Ohio had four special sessions and Arizona three. In most instances the special sessions were of limited duration, usually lasting less than a week. There were far fewer special sessions held in 1946 than for the comparable year of 1944 when all but eight states held special sessions Many of the special sessions held in 1946 were for the purpose of increasing salaries of public employees, particularly school teachers. Veterans' problems were also before many of these extraordinary sessions. These subjects also occupied the time of the legislatures in regular session. Other subjects given special attention in 1946 were: aviation, hospitals, intergovernmental relations, industrial promotion, and social welfare.

A summary of the more important enactments on subjects of general interest follows:

Aviation. Almost all of the states enacted legislation affecting some phase of aviation development or regulation. Massachusetts and Wyoming enacted measures requiring that federal grants for the construction of public airports be channeled through established state aviation agencies and that such projects be approved by the state agencies in accordance with state airport plans. Kentucky and Virginia passed measures affecting their state aviation agencies. California, Michigan, New York, South Carolina, and Virginia passed bills dealing with airports and air navigation facilities. Georgia and Kentucky enacted legislation relating to airport zoning.

Education. Salary increases for teachers were authorized by almost every legislature meeting in regular session and numerous special sessions were called specifically for that purpose. In fact, with the passage of measures providing for a $25 million increase in funds for schools, the Louisiana legislative session was dubbed a "School-teacher session." Under Louisiana law the governor has authority to reduce appropriations, so this amount was trimmed somewhat, but there were many gains made by the teachers.

Kentucky passed a school-teachers' retirement bill, increased the school term from seven to eight months, and appropriated $45,000 for a bi-partisan survey and reorganization of its educational system. Mississippi also established a special commission to investigate the state's educational system, especially its expenditures for common schools. Mississippi took the rather unusual step of outlawing high-school fraternities. A 30 percent increase was made in Mississippi's educational appropriations with funds allocated for more salaries and additional buildings, including a new vocational college to train Negro teachers. In Virginia the legislature gave first-time approval to a proposed constitutional amendment to permit consolidation of a city and county or counties into a single school division, and adopted legislation providing for the distribution of state school funds on average daily attendance of pupils rather than by "teacher units."

A special commission to study the advisability of creating a state university was authorized in New York. At the same time a temporary state university for veterans was set up at a former naval barracks. A number of experimental technical training schools were established in some of the larger New York cities. Increased aid to New York school districts was also voted and additional state scholarships for veterans were authorized. Special training courses for juvenile delinquents were authorized for certain state institutions.

Teachers' retirement benefits were raised in Rhode Island.

Elections. Kentucky joined the rest of the states in providing for absentee voting by enacting legislation implementing a constitutional amendment adopted in 1945. After a hot debate Mississippi failed to approve legislation revising its primary election law. New York retained its State War Ballot Commission for another year and approved a statute granting voting rights to servicemen serving overseas in peace time.

Virginia authorized numerous basic reforms in its electoral code, including first-time authorization for constitutional amendments to abolish the poll tax and substitute annual registration of voters. These proposals must be approved by the 1948 session of the legislature before they can be voted upon finally by the people. However, a state board of elections was created with strong supervisory powers and other improvements were made in the election code.

Health and Hospitals. A trend toward more rigid licensing and regulation of professions and trades related to medicine continued in 1946. Dental technicians were required to be registered in South Carolina. Provisions were established in New York for the regulation of opticians and the practice of orthoptics (contact lens). Pharmacy practice acts were strengthened in Kentucky, Massachusetts, and New York and trades, such as cosmetology and barbering, came under stricter regulation in New York. Chiropractic regulatory acts were strengthened in Kentucky, Maryland, and South Carolina. Psychologists, osteopaths, and midwives also came under regulation in a number of states. Mississippi provided funds for a program for the eradication and control of venereal diseases, and New York, Virginia, and Idaho (in special sessions) provided additional care for those suffering from tuberculosis. Special studies of spastics and their problems

and of the causes of infantile paralysis were authorized in New York and Massachusetts respectively. $325,000 was appropriated to a new Mississippi Board of Medical Education.

There was a flurry of bills introduced regulating dangerous drugs such as the barbiturates, hormones, hypnotics, and the various DDT preparations on the market. Massachusetts, New York, and Virginia were among the states that enacted legislation in this field.

A New Jersey act authorized the establishment of blood banks to collect and store blood and blood plasma, and Massachusetts authorized approved laboratories to examine blood donors or recipients of blood.

Medical education was furthered in California by appropriations of $7 million for the establishment of a medical school and center at U.C.L.A. and $4 million for additions to the University of California's medical center at San Francisco. A four-year, class A, medical school was authorized in Mississippi with accompanying appropriations. Both New York and Massachusetts authorized studies of the need for additional graduate schools. Nutritional problems will be surveyed in New York State by a joint legislative committee with broad powers.

California, in special session, appropriated funds for the licensing and inspection of public and private hospitals, and Georgia, Massachusetts, Mississippi, and Virginia adopted a number of bills requiring the inspection and regulation of hospitals, homes for the aged, and nursing homes. In some instances the bills amended existing statutes.

A number of the states, including California, Michigan, Mississippi, New York, South Carolina, and Virginia, followed recommendations in the Legislative Program of the Council of State Governments by authorizing hospital construction surveys and by providing for the acceptance by the state of federal funds, when available, for such hospital inventories and construction costs. Special health commissions or medical-care surveys were authorized in Massachusetts, Mississippi, New York, and Rhode Island.

California, Massachusetts, Michigan, and Virginia recognized the increasing problem resulting from mental diseases and provided additional facilities for the treatment of the feeble-minded and those affected with nervous and mental diseases. Louisiana enacted a mental health act to provide for the study and treatment of such diseases.

Hospital care and medical service plans were authorized or broadened in Kentucky, Mississippi, New York, South Carolina, and West Virginia. In New York medical service plans may provide for dental expense indemnity.

Highways and Motor Vehicles. The New York legislature extended for another year its 2-cent emergency gas tax and Virginia and Mississippi adopted legislation taxing at 6 cents a gallon all gasoline purchased by carriers outside the state but used over roads in the state. In addition, the gas tax was raised from 5 cents to 6 cents a gallon in Virginia, private auto tag fees were reduced, and the gross receipts tax on trucks was replaced by increasing license fees for trucks. Bills liberalizing vehicle sizes and weights passed in Kentucky, Massachusetts, Mississippi, and New York. These changes, which were minor in nature, brought the states' statutes into conformity with emergency standards established by Governors' proclamations issued during the War. In many instances, before the War, these size and weight restrictions were barriers to interstate commerce. Almost all of the states have continued their wartime uniform size and weight standards in order to maintain freedom of commerce. To aid the Mississippi Comptroller in collecting gasoline and motor vehicle privilege taxes of various kinds, legislation was enacted authorizing the establishment of "courtesy stations" patterned after the ports of entry operating in a number of other states. Bills increasing truck registration fees or proposals changing the basis for levying such fees were approved in Kentucky, Missouri, New Jersey, Virginia, and by Georgia. Fees were reduced somewhat by the Mississippi legislature. Kentucky became the thirty-sixth state to enact the Uniform Motor Vehicle Safety Responsibility Act which has been highly recommended by various national safety organizations. Mississippi authorized the expenditure of $7,500 for rate investigations and litigation of carrier transportation, and South Carolina established a Joint Legislative Committee to investigate accidents and to improve highway safety.

Where necessary, those states in session appropriated the required amounts to match Federal funds available to the states under the Federal Aid Highway Act of 1944. Appropriations for highway construction were in general considerably above previous annual appropriations, due to the resumption of construction and the great need for repair and replacement of state roads.

Efforts to lessen traffic congestion were made by Massachusetts, which authorized construction of parking facilities under Boston Common, and by New Jersey, which permitted the New York Port authority to finance a union bus terminal. Municipalities were also authorized to establish and operate bus terminals. Louisiana and New York enacted legislation establishing 50 miles per hour as the state's speed limit and New York set up a state Division of Safety in carrying out a comprehensive highway safety program recommended by Governor Dewey.

Labor Legislation. The New Jersey legislature enacted a comprehensive law governing the industrial relations of public utilities, under which the State Board of Mediation is authorized to settle controversies and the Governor is empowered to seize and operate any utility for the duration of a labor dispute. This law was applied for the first time in December during the course of a utility strike. Laws restricting labor unions and outlawing certain types of picketing were passed by Louisiana and Virginia. As a result of earlier legislation putting it on the ballot voters in Arizona, Nebraska, and South Dakota approved proposals at the November election to ban the closed shop. Massachusetts also voted by direct legislation in November to approve a proposal to require that labor unions make public their financial reports.

Missouri established a new department of labor and industrial relations. The department is to be administered by a commission of three members. Kentucky established a Department of Industrial Relations and Employment Services. Massachusetts created a Fair Employment Practices Commission, but California defeated a similar proposal in the November election. Alabama, California, Georgia, Kentucky, Massachusetts, New York, and Virginia enacted legislation affecting workmen's compensation. Mississippi again rejected a workmen's compensation law. Other states have such legislation.

New York approved a number of bills regulating the recruitment and housing of migratory workers. Rhode Island set up an industrial code commission with authority to establish codes for the prevention of accidents and occupational diseases.

Public Welfare. Broad improvement was registered in the California welfare organization through adoption of legislation in a special session by expanding training centers for the blind; by the improvement of child care centers, and by improving inspection of homes for the aged. Idaho also in special sessions established a Charitable Institutions Commission with full control and management of all charitable institutions in the state. Joint Legislative Committees were established by Michigan in special session and by New Jersey in regular session to study and investigate juvenile delinquency problems. A system of Youth Courts was established in Mississippi. An Advisory Commission for the Blind was created by the Kentucky legislature, and enabling legislation was approved authorizing the establishment of joint city and county boards of public welfare in order to reorganize and consolidate existing services throughout the state Ohio, Nebraska, and Mississippi adopted a number of bills increasing the amount and improving aid to the blind and Mississippi approved legislation providing for the erection of a training center for the blind. An improved program for child welfare services was authorized in Mississippi and a Children's Code Commission was created to study and promote the welfare of children.

An adoption laws study commission and commissions to investigate pardons and parole laws and juvenile delinquency were established by the Massachusetts General Court. Kentucky revised its adoption laws in order better to protect children

Almost every state in session increased allowances for old-age pension assistance and provided more funds for the blind and needy.

New York enacted a broad program of legislation relating to public welfare including bills permitting the State Department of Social Welfare and local welfare departments to proceed with optional plans for developing integrated welfare services throughout the state. Under this program a single office would be provided in which persons may apply for all types of public aid and the investigation of family needs would be made by one agency The former antiquated "settlement" system in New York was abolished and a more easily administered residence requirement substituted. State aid to local districts for support of welfare payments and administration was stabilized under the 1946 legislation. Missouri created a new department of health and welfare which combines in a single agency a number of previously independent boards and commissions. Health, mental care, and welfare functions are now grouped in one over-all department with directors appointed by the Governor. A merit system governing employment was also provided.

Kentucky passed enabling legislation to permit a city and county to create a joint board of public welfare which would consolidate various welfare activities in one agency. Massachusetts revised legislation regulating the granting-of-aid to dependent children and relating to soldiers' relief. The establishment of more public welfare agencies in certain districts was authorized in Mississippi and the State Welfare Department was given supervision over all public child welfare services. New Jersey authorized a full dress study of its unemployment sickness compensation fund and enacted legislation consolidating municipal public assistance activities and abolishing the office of Overseer of the Poor. Virginia authorized its state welfare agency to fix standards and regulations for the operation of homes for the aged and to organize a state-wide system of such homes. Virginia also created a special legislative commission to study its program of public assistance. That Commonwealth also outlawed its antiquated statute permitting the flogging of convicts.

California, Idaho, Kentucky, Massachusetts, Michigan, Mississippi, New Jersey, New York, Rhode Island, South Carolina, Virginia, and Wyoming in special or regular sessions enacted legislation affecting the public assistance programs, including assistance to the aged, the blind, the infirm, and dependent children. Rhode Island strengthened its cash sickness insurance fund which had first been set up in 1945

Unemployment Compensation. The most interesting development in this field was the enactment by California of unemployment-compensation disability benefits as a supplement to its Unemployment Insurance Act. California thus joins Rhode Island in compensating unemployment due to sickness. The fund to pay sickness benefits will be financed by employee contributions at the rate of 1 percent of wages up to $3,000. The disability system in Rhode Island is not a part of the compensation system. Massachusetts and New Jersey adopted resolutions authorizing studies of plans for the payment of disability benefits

Kentucky and Missouri reorganized their unemployment compensation system. In Kentucky the Employment Service Commission in the Department of Industrial Relations was established with a full-time director to establish and maintain free public employment offices, to administer the Wagner-Peyser Act, and to perform other duties and powers previously carried on by other agencies. A Department of Labor and Industrial Relations controlled by a three-member Industrial Commission was established in Missouri. The State Employment Service and Unemployment Compensation department were established under a division of employment security in the new department.

Kentucky, Mississippi, and New York joined those states that provided both administratively and financially for the day when the United States Employment Service was returned to state control. (This later turned out to be November 15, 1946.)

Louisiana became the thirty-first state to extend coverage by providing that any employing unit is subject to state tax which is subject to the Federal Unemployment Tax Act. In addition, it became the nineteenth state to provide that if the Federal unemployment tax is extended to include services not now covered, state law automatically includes such services. Massachusetts, Missouri, and Virginia made minor changes in provisions of their laws relating to experience ratings, and Massachusetts and Missouri increased their maximum weekly benefit amounts from $21 to $25 and from $18 to $20 respectively, while Virginia raised its minimum benefit from $4 to $5. Louisiana extended coverage to maritime workers and dropped the $3,000 wage limitation in computing benefits, while New York repealed the provision limiting the benefit rights of seasonal workers. Numerous minor changes were made in the contribution sections of the Rhode Island, Louisiana, New York, and Virginia laws. Louisiana joined nine other states in subscribing to the Interstate Maritime Reciprocal Arrangement which avoids duplications among the subscribing jurisdictions (states and with the federal government) with reference to the contributions and coverage of maritime workers.

Taxation. Uncertain economic conditions seemed

to have contributed to the amount of tax legislation enacted in 1946. The search for additional sources of revenue was not limited to federal and municipal governments, if we are to judge from tax increases and new taxes imposed by the few legislatures meeting in 1946. Massachusetts assessed an additional 1½ percent corporation net income tax for the years 1947–1950. This amount would be levied in addition to the regular 10 percent tax and the 3 percent surtax. The new tax replaces an emergency tax of 2½ percent which was temporary in nature. Efforts to eliminate the additional amount failed after a bitter fight by manufacturing interests. Kentucky, Louisiana, and Mississippi tightened provisions in their income tax laws. In Mississippi 1946 legislation permits members of the legislature during sessions, and delegates to professional association meetings and political conventions, to deduct expenses from their income tax. Missouri enacted a 7 percent net income excise tax on banking institutions and turned the administration of the personal income tax law over to a State Director of Revenue rather than county assessors. Almost all of the states in session provided a war service compensation on personal income taxes or continued modest exemptions for those serving in the armed forces. In most states $1,500 was exempted.

A fifty percent cut in personal income taxes was put through in New York State. Temporary business corporation franchise taxes were also removed and the unincorporated business tax was reduced. In addition, numerous technical improvements were made in the personal income and business franchise tax laws. At the same time New York extended its emergency estate tax.

Arizona, Louisiana, Maine, New York, and South Carolina increased taxes or license fees on beer and liquor. Arizona led the parade with a fifty percent increase in its luxury excise tax on liquor

Maine enacted a 5 percent tax on luxury items such as jewelry, furs, etc, also on admissions and cigarettes, only to have the proposals defeated by referendum at the Fall elections Illinois approved a ½ mill increase in its cigarette tax in order to help pay for the soldiers' bonus authorized in November.

Gasoline tax changes mainly had to do with refunds on taxes paid on gas used by the Federal government, by local governments, or for agricultural purposes.

Virginia authorized any city or town to impose a tax on bank stock. Numerous technical amendments were made in state tax codes covering general license fees, property taxes, the corporation franchise tax, and levies on insurance companies. Massachusetts imposed a 5 percent tax on the profits on fire and marine insurance companies.

During the sessions there were many requests from city governments for authority to increase or impose additional taxes. For instance New York and Rhode Island passed enabling legislation permitting cities to impose a tax on hotel bills. This is a continuation of a trend which has developed in recent years due to the critical financial plight of the large municipalities and the need for new sources of revenue other than the property tax or license fees. The result has been that cities such as Philadelphia, Toledo, and St. Louis now impose income taxes, and many cities collect sales, gross receipts or tobacco taxes. In most instances state enabling legislation was required to pave the way for these new taxes. In some states the fight for additional municipal revenue revolved around efforts to secure the appropriation of the states' postwar reserves or of a larger proportion of the sales tax for cities. In California, $90 million of the state's reserves were given to cities, and in Ohio and Michigan (by Constitutional amendment) a larger proportion of sales tax revenues was allocated to cities. In Louisiana, New York, and Rhode Island a redistribution of pari-mutuel tax revenues will result in more revenue for the cities.

New York adopted a comprehensive program of aid to cities based on a special study with the result that the amount of aid received by localities from the state will be stabilized; a new basis for distributing such aid was arrived at, and New York City was given permission to levy numerous additional taxes.

After endless debate on the subject, the Rhode Island legislature established a special commission to study state-local relations and to develop a system of taxation to finance adequately both levels of government.

Veterans' Legislation. The problem of the veteran was the major subject before the 1946 legislatures. What to do about the veteran's schooling, housing, taxes, and his job, or lack of a job, were problems of paramount importance at every state capital. (Special reports on State Veterans' Legislation have been issued by the Council of State Governments and by various federal agencies.)

With respect to veterans' education, California appropriated $750,000 for direct education assistance to veterans during the current school year. Correspondence instruction and apprenticeship training for veterans were also provided. Louisiana authorized state aid for the education of children of deceased veterans. Maine appropriated $250,000 to provide emergency facilities for veterans at the State University. Massachusetts established a new college for veterans at Fort Devens; authorized cities to provide college courses; and provided free university extension courses for veterans. Michigan set aside $200,000 as an emergency loan fund for veteran students. New York created five institutions of arts and sciences; and established more state veterans' scholarships. Almost all of the states made emergency supplemental appropriations to enlarge their universities to meet increased enrollments of veteran students.

Veterans' housing problems were so critical that many states made funds available for providing temporary housing at state universities, and others authorized bond issues for the construction of permanent dormitories. California appropriated $7½ million to aid communities in acquiring emergency housing from the federal government for veterans. Connecticut appropriated $5,000,000 for the same general purpose and in addition established a revolving fund to provide lumber from state forests to be used for veterans' housing. Massachusetts passed an enabling act to permit local communities to take various emergency housing and most of the other states in session empowered political subdivisions to participate in the Federal emergency housing program for veterans. New Jersey gave its department of economic development sweeping powers to acquire land, buildings and other facilities for emergency housing with an appropriation of $6 million. Later a $35 million bond issue was authorized by the voters for this purpose. New York created a board for emergency housing of veterans with broad powers to construct housing facilities and with appropriation of $35 million from the postwar reconstruction fund to carry out the act. Ohio appropriated $6 million to its counties, allocated on a population basis, to

provide temporary emergency housing for veterans.

Bonus legislation was considered by a few of the states. For instance Massachusetts supplemented its 1945 bonus measure by providing for payment of an additional $100 to veterans who had not served outside the United States, and an additional $200 to those who saw overseas service. Illinois, Michigan, and Rhode Island paved the way for referenda on the subject at the November election with the result that bond issues for the payment of the bonus were adopted in the three states. During 1946, the New York legislature approved for the first time a bonus measure requiring bonds amounting to $400,000,000. If passed again at the 1947 session this proposal will go to the electorate for approval November, 1947.

California, Kentucky, Louisiana, Minnesota, Massachusetts, Mississippi, New Jersey, New York, Ohio, and Virginia enacted measures further strengthening veterans' employment preference status or granting reemployment rights for veterans returning to state jobs.

With one exception every state meeting in regular session in 1946 passed laws to grant veterans exemptions from taxes and licensing requirements. Included were exemption from penalties and interest in connection with property taxes for individuals while in service; extension of time for paying state income tax; property tax exemption for disabled veterans; exemption from payment of poll taxes; automatic reinstatement of veterans who held licenses granted by state boards, exemption from examination for veterans otherwise qualifying for various state licenses and credit for army experience in qualifying for certain licenses

Massachusetts legislature adopted a resolution authorizing for a survey of postwar problems relating to economics, housing, and the need for a $50,000,000 veterans' loan fund. Mississippi enacted a farm and home loan act to assist qualified veterans in buying a home or farm to cost not more than $5,000 when it can be shown that such veterans have been unable to obtain loans in their own community. Following a suggestion made by the Council of State Governments several states took action to permit veterans under age 21 to obtain certain benefits under the G. I. Bill (thus removing so-called "minority disability").

Miscellaneous. In Virginia small loan interest rates and agencies were more stringently regulated and in Kentucky pawnbrokers were licensed and regulated.

A comprehensive anti-pollution law was adopted in Virginia and a 5-member state water control board was established to help administer it. A cooperative program for the development and conservation of forest lands was approved in New York.

Numerous changes were made in the insurance codes of the states in order to comply with Congressional legislation (Public Law 15) requiring elimination of monopolistic practices by insurance companies in the states. New York established a special commission to study effect of the Federal Act on state regulation. New York continued its legislative commission to investigate agriculture with instructions to study spread between farm and consumer milk prices. Virginia appropriated additional funds for an expanded agricultural experimental program.

Conclusion. An analysis of state legislation enacted in 1946, the first postwar legislative year, shows that the states are meeting their expanded postwar responsibilities in a determined and constructive manner.

The attention given such subjects as aid to veterans, teachers' salaries, labor, fiscal policies, and state-local relations is an indication of the problems that will trouble the forty-four legislatures meeting in 1947 and for many years to come.

HUBERT R. GALLAGHER.

STATES OF THE U.S. Additional information pertaining to each of the 48 States and the District of Columbia has been assembled in comparative tables which appear in the following articles: AGRICULTURE, MARRIAGE STATISTICS, MINERALS AND METALS, ROADS AND STREETS, SCHOOLS, SOCIAL SECURITY BOARD, TAXATION, UNIVERSITIES, VITAL STATISTICS, ELECTIONS, REPRESENTATIVES, SENATE, and STATE LEGISLATION. (See the accompanying table on page 632).

STYLES. During 1946 the American fashion industry flourished in spite of the scarcity of fabrics, as well as restrictions on styling and prices. When postwar relaxation precipitated a fever of spending and lavish social life the industry met the challenge and produced the most elegant, luxurious fashions seen here since the fabulous twenties.

Paris lived again in America through the Theatre de la Mode, a beautiful exhibit of fashions in miniature brought by the Paris couture to New York, which achievement attested to its courage and spirit. By midsummer the Paris couture had inaugurated its regular openings, but not many Americans crossed for this too-early occasion.

In the meantime American designers had reached new heights in ingenuity and achieved merited recognition all over the world. Regional America was tapped for inspiration; war-born midwestern fashion centers blossomed. In addition to these advances in design great progress was made in fabric research and also in the designing for special age, size, and figure groups, much of this the result of war production.

Lower priced merchandise was forced out, however, by shortages and rising incomes. Of the two government price controls that governed the apparel industry the Maximum Average Price set of regulations, controlling manufacturer's products, was abandoned in July and the Office of Price Administration was weakened drastically during the year, and abandoned entirely in November 1946. Despite high prices and poor quality clothing sales skyrocketed. Jewelry and fur sales were not hampered by the continued twenty percent luxury tax until October, after which furs suffered a substantial decline and customers became wary of buying.

Some materials, scarce during the war, returned: nylon early in the year, pure silk by mid-year, and pure linen as well. Others, especially rayon, worsted, and leather continued short and curtailed production.

The fashions of 1946 were drawn largely from the nineteen twenties' parallel postwar era. In addition, the romantic Proust era after the turn of the century offered inspiration too. Suits, highly styled, feminine, and varied continued as the mainstay of women's wardrobes.

The dressy shortcoat—about thirty-one to thirty-four inches long—worn over the dress or suit, either brief, boxy, and flared usually or belted, was a big favorite for spring; for fall it continued, but without the belt.

Blouses grew in fashion importance and in variety of styles. Younger women favored all fabrics and colors in the blouse worn over the skirt, usually adding a wide, decorative leather belt. The most successful colors, besides black, were neutrals in a

State	Area (sq. mi)	Population 1940 Census	Capital	Governor	Inauguration and Term	Lieut Gov. (1946)	Sec'y of State (1946)	Atty Gen. (1946)
Alabama	51,609	2,832,961	Montgomery	James E Folson	Jan. 1947, 4 yr	L Handy Ellis	Sibyl Pool	Robert B Harwood
Arizona	113,909	499,261	Phoenix	Sidney P. Osborn	Jan 1947, 2 yr	None	Dan E Garvey	John L. Sullivan
Arkansas	53,102	1,949 387	Little Rock	Ben Laney	Jan 1947, 2 yr	J. I Shaver	C G Hall	Guy E Williams
California	158,693	6,907,387	Sacramento	Earl Warren	Jan 1947, 4 yr.	Frederick F Houser	Frank M Jordan	Robert W Kenny
Colorado	104 247	1,123,296	Denver	William Lee Knous	Jan 1947, 2 yr.	William E Higby	Walter F Morrison	H Lawrence Hinkley
Connecticut	5,009	1,709,242	Hartford	James L McConaughy	Jan 1947, 2 yr.	Wilbert Snow	Charles J. Prestia	William L Hadden
Delaware	2,057	266,505	Dover	Walter W Bacon	Jan 1945, 4 yr.	Elbert N Carvel	William J Storey	Clair John Killoran
Florida	58,560	1,897,414	Tallahassee	Millard F Caldwell	Jan 1945, 4 yr.	None	Robert A Gray	J Tom Watson
Georgia	58 876	3,123,723	Atlanta	Eugene Talmadge [a]	Jan 1947, 4 yr.	None	John B Wilson	Eugene Cook
Idaho	83,557	524 873	Boise	C A Robins	Jan 1947, 2 yr.	Vacancy	Ira H Masters	Frank Langley
Illinois	56,400	7,897,241	Springfield	Dwight H Green	Jan 1945, 4 yr	Hugh W Cross	Edward J Barrett	George F. Barrett
Indiana	36,291	3,427,796	Indianapolis	Ralph F Gates	Jan 1945, 4 yr	Richard T James	Rue J Alexander	James A Emmert
Iowa	56,280	2 538,268	Des Moines	Robert D Blue	Jan 1947, 2 yr.	K A Evans	Wayne M Ropes	John M Rankin
Kansas	82,276	1,801,028	Topeka	Frank Carlson	Jan 1947, 2 yr.	Jess C Demous	Frank J Ryan	A B Mitchell
Kentucky	40,395	2,845 627	Frankfort	Simeon Willis	Dec 1943, 4 yr.	Kenneth H Tuggle	Charles K O Connell	Eldon S Dummitt
Louisiana	48 523	2,363 880	Baton Rouge	James H Davis	May 1945, 4 yr.	J Emile Verret	Wade O Martin, Jr.	Fred S LeBlanc
Maine	33,215	847,226	Augusta	Horace Hildreth	Jan 1947, 2 yr.	None	Harold I. Goss	Ralph W Farris
Maryland	10,577	1,821,244	Annapolis	William P Lane, Jr.	Jan 1947, 4 yr.	None	William J McWilliams	William Curran
Massachusetts	8,257	4,316,721	Boston	Robert S Bradford	Jan 1947, 2 yr.	Robert F Bradford	Frederic H Cook	Clarence A Barnes
Michigan	58,216	5,256,106	Lansing	Kim Sigler	Jan 1947, 2 yr.	Vernon J Brown	Herman H Dignan	John R Dethmers
Minnesota	84 068	2,792,300	St Paul	Luther W Youngdahl	Jan 1947, 2 yr.	C Elmer Anderson	Mike Holm	J A A Burnquist
Mississippi	47,716	2,183,795	Jackson	Fielding L Wright [b]	Jan 1944, 4 yr	Fielding L Wright	Walker Wood	Greek L. Rice
Missouri	69,674	3,784,664	Jefferson City	Phil M Donnelly	Jan 1945 4 yr	Walter N Davis	Wilson Bell	J E Taylor
Montana	147,138	559,446	Helena	Sam C Ford	Jan 1945, 4 yr	Ernest T Eaton	Sam W Mitchell	R. V. Bottomley
Nebraska	77,237	1,315,834	Lincoln	Val Peterson	Jan 1947, 2 yr.	Roy W Johnson	Frank Marsh	Walter R Johnson
Nevada	110,540	110,247	Carson City	Vail Pittman	Jan 1947, 4 yr	Vacancy	Malcolm E McEachin	Alan H Bible
New Hampshire	9 304	491 534	Concord	Charles M Dale	Jan 1947, 2 yr.	None	Enoch D. Fuller	Frank R Kenison
New Jersey	7,836	4,160 165	Trenton	Alfred E Driscoll	Jan 1947, 3 yr	None	Joseph A Brophy	Walter D Van Riper
New Mexico	121,666	531,818	Santa Fe	Thomas J Mabry	Jan 1947, 2 yr	J B Jones	Cecilia T. Cleveland	Clyde C McCulloch
New York	49,576	13,479,142	Albany	Thomas E Dewey	Jan. 1947 4 yr	Joe R Hanley	Thomas J Curran	Nathan L Goldstein
North Carolina	52,712	3,571,623	Raleigh	R Gregg Cherry	Jan 1945, 4 yr.	L Y Ballentine	Thad Eure	Harry McMullan
North Dakota	70 665	641,935	Bismarck	Fred G Aandahl	Jan 1947, 2 yr.	C P Dahl	Thomas Hall	Nelse G Johnson
Ohio	41,222	6,907,612	Columbus	Thomas J Herbert	Jan 1947 2 yr.	George D Nye	Edward J Hummel	Hugh S Jenkins
Oklahoma	69 919	2 336,434	Oklahoma City	Roy J Turner	Jan 1947, 2 yr	James E Berry	Frank C Carter	Randell S. Cobb
Oregon	69,981	1,089,684	Salem	Earl Snell	Jan. 1947, 3 yr.	None	Robert S Farrell, Jr.	George W Neuner
Pennsylvania	45,333	9,900,180	Harrisburg	James H Duff	Jan 1947, 4 yr.	John C Bell, Jr.	Charles M Morrison	James H. Duff
Rhode Island	1 214	713 346	Providence	John O Pastore	Jan 1947, 2 yr.	Vacancy	Armand H Coté	John H Nolan
South Carolina	31,055	1,899,804	Columbia	J Strom Thurmond	Jan 1947, 4 yr	Vacancy	W P Blackwell	John M Daniel
South Dakota	77 047	642,961	Pierre	George T. Mickelson	Jan 1947, 4 yr.	Sioux K Grigsby	Mrs L M Larsen	George T Mickelson
Tennessee	42 246	2,915,841	Nashville	Jim Nance McCord	Jan 1947, 2 yr.	None	Joe C Carr	Roy A Beeler
Texas	267,339	6,414 824	Austin	Beauford H Jester	Jan 1947, 2 yr.	John Lee Smith	Claude Isbell	Grover Sellers
Utah	84,916	550,310	Salt Lake City	Herbert B Maw	Jan 1945, 4 yr.	None	E. E Monson	Grover A. Giles
Vermont	9 609	359,231	Montpelier	Ernest W Gibson	Jan 1947 2 yr	Lee E Emerson	Rawson C Myrick	Alban J Parker
Virginia	40 815	2,677,773	Richmond	William M Tuck	Jan 1946, 4 yr.	Vacancy	Vacancy	Abram P. Staples
Washington	68.192	1 736,191	Olympia	Mon C Wallgren	Jan 1945, 4 yr	Victor A Meyers	Mrs Belle Reeves	Smith Troy
West Virginia	24,181	1,901,974	Charleston	Clarence W Meadows	Jan 1945, 4 yr.	None	William S O'Brien	Ira J. Partlow
Wisconsin	56,154	3,137 587	Madison	Walter S Goodland	Jan 1947, 2 yr.	Oscar A Rennebohn	Fred R Zimmerman	John E Martin
Wyoming	97,914	250,742	Cheyenne	Lester C Hunt	Jan 1947, 4 yr.	None	William Jack	Louis J. O'Marr
Dist. of Columbia [c]	69	658,018						

[a] Died Dec. 21, 1946. [b] Succeeded to office. [c] Administered by Committee appointed by the President, confirmed by the Senate, and consisting of John Russell Young, Guy Mason, and Col. Charles W. Kutz, C E.

wide range of greige, gray, and fall beige shades. Browns, especially cocoa brown, took on new importance. The bold bright colors of wartime years, such as bright red, bold royal blue, and bright green declined somewhat, although red and green especially, were still worn During the late fall there was a demand for grayed pastel colors inspired by the French exhibit of Aubusson tapestries, but the poor condition of the rayon market short-circuited the demand.

In prints, bold, abstract, and conversational motifs and beautifully grouped flowers led in design. Print colors showed pastel backgrounds with black or navy designs; or black and navy backgrounds with colorful designs. Pastel pink, turquoise blue with black designs and black or navy with roses or poppies were favorite combinations.

Woolens were plentiful although worsteds of all kinds were still scarce; and wool jersey made a new fashion place for itself.

There was an increased demand for matched or ensembled sportswear wardrobes; gabardine for fall, checks for spring, and denim for summer, they served in all seasons Clothes for travel by air, land, and sea, especially travel coats, returned to fashion. Functional active sports clothes came back and promise greater popularity for 1947.

In the spring relief from some government restrictions limiting yardage brought a freer, rounded silhouette—wide, rounded shoulders, rounded, full or balloon sleeves, a trend toward rounded, extended hiplines Skirts were as full and as long as the law allowed. Suits again added small collars and were well fitted at the waist; many were belted. The deeper armholes, soft rounded or drop shoulders, deep yokes, color insets or braid, trapunte or embroidery trim were new features Jackets grew longer and tunics reappeared. Notable were black fitted suits of faille, taffeta, or moire for dress-up occasions. In fact, the dressy black suit in gabardine or faille became a star of the year This was often worn with beautiful blonde fur stoles or fur capes Introduced later in the spring were suits with the Dandy look inspired by Napoleon's time. Thus they were worn with stock or scarf, jewelry chatelaine, tall hat, umbrella and over-shoulder bag

The box coat on the overcoat type continued as a classic and the well fitted dress coat made its entrance as a new spring fashion. This fitted dress coat with or without fur developed into a prominent fall fashion, the shortcoat declining sharply for fall, but the box coat again continuing with fur tuxedos or fur linings or also without fur. Coat colors followed the color gamut and though black was very important the neutrals followed closely in second place.

In summer, dresses and playsuits showed throat, arms, one or both shoulders, midriff or went to the opposite extreme with high necklines, long sleeves, longer hemlines, capes, scarfs or stoles. The summer of 1946 saw more sophisticated fashions in contradistinction to the little-girl fashions of 1945. All lengths from slacks to shorts in the styles in feminine pants were popular, but "pedal-pushers" of the just-below-the-knee or regulation skirt length were smartest and gained much popularity.

Elegance prevailed for fall and winter, in fancy fabrics, rich colors, extravagant jewel, bead, fur, and embroidery trim, luxurious furs, and lavish jewelry. There was a revival of formal evening clothes as well as a growth of glittering cocktail fashions. Billowing sleeves marked all fashions from blouses to furs, balloon sleeves usually, pushed up above the elbow. Dress necklines continued very high or daringly low. The small waistline was further accentuated. The skirt line, still restricted and narrow, was broken by draping, swag, side, pannier, or low harem drapes. Skirts lengthened, edging the law. A few, dipping unevenly, defied it. Peplums, bustles, fishtails, back dips were featured. New were hoods or head swathing in both casual and formal fashions, the short formal dress, and the swashbuckling greatcoats. Suits added collar, cuffs, and important pockets, and were notable, like dresses, for important sleeves, back interest, and Paris-inspired cutaways. Menswear worsteds in fancy patterns and pretty colors were used in the newest looking suits although gabardine in black, brown, and at least twelve other colors, was still most popular.

Favorite furs were nutria, Persian lamb, mink, and muskrat in new mutations, stone marten, and newly released and fashionable mouton, which became the big popular fur coat for young Americans, retailing well under two hundred dollars The three-quarter length fur coat was considered smartest, though the majority of wearers still preferred long, fuller coats for practicality.

Accessories increased in use too, their coordination again emphasized. In spring, straw hats returned, especially large straw hats, white, black, and toast shades with flowers and open crowns, ripple brims leading. Fall hats were lavish with imaginative feathers in addition to ostrich, gold, jewel trim Shoes in favor showed contrast from flat-heeled casuals to very high-heeled open-toed dressy sling pumps with ½- to 1-inch platform soles.

Fall saw a returning trend toward the closed toe and closed back pump. Roomy over-shoulder bags were the outstanding daytime bag fashion inspired by those worn by women in the Armed Services. For dress-up, smaller pouch bags and boxy shapes were favored Gold frames returned after a wartime absence Demand continued for heavy gold real and costume jewelry—link, cuff bracelets, worn often in groups, large bulky clip earrings, conspicuous pins Diamonds and their cousins, rhinestones, returned Scarfs, larger, more elaborate, and varied, grew increasingly popular, particularly those with glitter or sequin, and those made of conversational prints. Belts were much worn especially wide leather belts with brass buckles, nailheads, or insignia. Gold kid belts in many widths became a fashion from sports to evening.

As the year closed, American designers, freely interpreting Paris fashions, anticipated greater freedom in styles for the spring. The feeling of "one world in fashion" prevailed, with no one city ever again the world fashion center.

TOBÉ.

SUEZ CANAL. A sea-level canal across the Isthmus of Suez, connecting the Mediterranean and the Red Sea. Operated by the French-controlled Suez Canal Company, which holds a concession (expires Nov. 17, 1968) from the Egyptian Government, the canal is normally the main route between maritime Europe and the ports of the Indian and western Pacific oceans.

Cargo traffic on the canal declined from the peak of 36,129,101 net registered tons carried by ships in the calendar year 1937 to 13,092,615 tons carried in 1940, 8,263,000 tons in 1941 and 7,028,000 tons in 1942. In 1945 net registered tonnage passing through the canal reached 25,065,000, with the United States shipping 22 percent of the total.

SVALBARD. An arctic archipelago (10° to 35° E. and 74° to 81° N.) owned by Norway. The princi-

pal islands are West Spitsbergen (or Mainland), North East Land, Prince Charles Foreland, Edge Island, Barents Land, King Karl's Land, Hope Island, and Bear Island (69 sq. mi.). Total area, 24,294 square miles. Population on January 1, 1940, about 1,000. Green Harbor (capital), New Aalesund, Coles Bay, Longyearbyen, and Braganza Bay were the main settlements, all on the western coast of West Spitsbergen. Coal was the chief product (606,000 metric tons in 1938 and 540,963 in 1940). Iron, asbestos, and gypsum exist. Most of the inhabitants were evacuated during September, 1941. The archipelago commands the route over which Allied war supplies were sent to the Russian port of Murmansk during World War II.

SWAZILAND. A British protectorate in southern Africa, at the southeastern corner of the Transvaal. Area, 6,705 square miles. Population (1936 census), 156,715. Capital, Mbabane. The territory is administered by a resident commissioner acting for the High Commissioner for the British High Commission Territories in South Africa. Native chiefs continue to rule their tribes. Agriculture and grazing are important and the territory also produces gold and asbestos. Swaziland is united with South Africa for customs purposes. Resident Commissioner, E. K. Featherstone, appointed 1942.

SWEDEN. A constitutional monarchy of Scandinavia. Sovereign, Gustav V, who succeeded to the throne on Dec. 8, 1907. Area, 173,398 square miles. The estimated population on Jan. 1, 1945, was 6,597,348 (6,250,500 at the 1935 census). Vital statistics (rate per 1,000) for 1943: births 19 3, deaths 10.1, marriages 9.5, infant mortality 29. Chief cities (with estimated population figures for 1944): Stockholm (capital) 635,534, Goteborg 290,486, Malmö 163,213, Norrköping 73,353, Halsingborg 64,087.

Education and Religion. Education in the public elementary schools is free and compulsory. Children not attending schools under government supervision must furnish proof of having been privately educated. In 1942 the elementary schools had 529,750 students. The 162 secondary schools, in 1944, had a total 57,283 students; in addition there were military, navigation, agriculture, veterinary, and other special schools. In 1944 the universities at Goteborg, Lund, Stockholm, and Uppsala had a total of 8,937 students enrolled. The majority (90 percent) of the population adhere to the Lutheran Protestant Church. Protestant Dissenters, Roman Catholics, Jews, and some others make up the minority.

Government. The Constitution of 1809, as subsequently amended, vested executive power in a hereditary King, acting under the advice of a Council of State (Cabinet), which is responsible to the Diet or Riksdag. The Upper Chamber of the Riksdag has 150 members, one-eighth of whom are elected annually by provincial and city councils; the Lower Chamber has 230 members, elected by direct male and female suffrage for four years. Party strength in the Lower Chamber, as a result of the general election of Sept. 17, 1944: Social-Democrats 115, Conservatives 39, Agrarians 35, People's Party (Liberals) 26, Communists 15. Prime Minister, appointed July 31, 1945: Per Albin Hansson.

Events, 1946. The first months of the year saw Sweden engaged in a diplomatic tug-of-war with the Allies about the disposition of German assets in the country. Early in January, the liquidation of German enterprises and investments in Sweden got under way, the proceeds going to the Refugee Capital Administration. On February 27 it was announced in Stockholm that the United States, Britain and France had sent a formal invitation to Sweden to discuss the German funds at a conference in Washington. The invitation was accepted and a three-man delegation was sent to Washington, where the talks opened on May 31.

For several weeks the negotiations were stalled by Swedish insistence that the German assets—which were at first valued at $85,000,000 but later were conceded to be worth about $104,000,000—be used in the first place to compensate Swedish corporations for losses sustained in Germany, including machinery removed for reparations account; these Swedish claims on Germany were said to total $250,000,000. The Allied negotiators, on the other hand, maintained that the question of the machinery removed from plants located in Germany should be taken up with the occupying powers directly and that it did not affect the Allies' claim to German property in Sweden. In this dispute, the Allies had a strong bargaining point in the fact that $200,000,000 of Swedish assets in the United States had been frozen during the war and were being held pending a settlement of the German assets question.

On July 18, it was announced in Washington that an agreement in the matter had been reached. Sweden promised to turn over to the Allies, in one form or another, about $77,000,000 from the proceeds of sequestered German assets; the remainder was to be used for the settlement of Swedish clearing claims against Germany. At the same time, the United States agreed to release the blocked Swedish funds and to abolish the wartime blacklist against certain Swedish nationals. The Allies also agreed to compensate Sweden for any losses resulting from removals on reparations account effected in Germany.

Significant Elections. Elections for municipal councils and provincial assemblies (landsting) took place on September 15. While it did not have the immediate political importance of the general election to the Lower Chamber of the Riksdag in 1944, the poll nonetheless was significant as a barometer of changing political sentiment and also because the members of the Upper Chamber are elected by the provincial assemblies and municipal councils.

Chief winner of the election was the People's party (Liberals) which for the first time in many years took second place, after the Social-Democrats. The latter lost 69 seats, but remained by far the strongest party. The Conservatives lost 62 seats and polled even fewer votes than in 1944, despite the heavier turnout. The Communists made new gains, especially in the big cities, Stockholm and Gothenburg. The Farmers improved their position somewhat. The following table, comparing the number of votes gathered by each of the major parties in three successive elections, will illustrate the changing political trend:

Political Party	*1942 Landsting Election*	*1944 General Election*	*1946 Landsting Election*
Social-Democrats	1,453,288	1,436,571	1,454,283
People's party	358,183	398,203	506,911
Conservatives	509,984	488,921	468,594
Farmers' Union	381,011	421,094	446,831
Communists	170,856	318,466	367,097

Although the outcome of the election was generally interpreted as a warning to the Social-Democrats that they were losing some of their popular support to the Communists, there were no immediate repercussions. The Social-Democrats, who

controlled exactly one half of the seats in the Lower Chamber and still had a majority in the Upper House, saw no need for either giving up the reins of government, or sharing it with any other party.

Erlander Takes the Helm. Within a few weeks, however, Death commanded a change of government. The entire Swedish nation was stunned and shocked when on the early morning of October 6 the radio announced that 60-year-old Premier Per Albin Hansson had suddenly died the night before. For 14 years, Mr. Hansson had governed Sweden, with only a three months' interruption in 1936 of his long premiership; he had outlasted any other democratically chosen chief of government of his time. In the minds of people even more than in the Kanslihus (government headquarters) he left a void that was not easy to fill.

On October 9 the executive board of the Social-Democratic party met to elect a new chairman—the post Per Albin Hansson had held for 21 years. Contrary to widely circulated forecasts, the committee's choice did not fall on either of the two "favorites," Minister of Social Affairs Gustav Moeller and Minister of Finance Ernest Wigforss, but on a "dark horse," Minister of Education Tage Erlander, 45.

In accordance with parliamentary tradition, King Gustav V, on October 10, appointed the new head of the majority party as chief of government. There were no other Cabinet changes except for the appointment of Josef Weijne to succeed Mr. Erlander as Minister of Education. Professor Oesten Unden, who in the brief interval had been Acting Premier, was retained as Foreign Minister.

The Russian Treaty. Premier Hansson passed away at a crucial moment in the nation's history. A few hours before his death he had sent instructions to a Swedish trade delegation in Moscow to sign one of the most controversial treaties of the year: the one-billion-kronor trade and credit agreement with Russia.

Several months of arduous spadework and of lively international debate had preceded the signing of this compact. Toward the end of May, a Swedish trade delegation went to Moscow for preliminary discussions. It was informed that Russia, besides a substantial increase in commercial exchanges between the two countries, desired a large credit to finance additional purchases in Sweden. The Russians asked for credits totalling one billion Kronor ($250,000,000 at the time), to be spent over a period of five years.

This was a startling amount for a small country like Sweden; it meant that for the next few years roughly 10 percent of the country's export business would be on credit. Moreover, it meant a sudden jump by Russia from the very bottom of Sweden's list of customers to second place. It also meant that Russia, in the postwar period, would play a role in Swedish affairs not unlike that played by Germany before, and during the war. The Swedes were not blind to the fact that a trade relationship of this type between a great and a small power seldom goes without some political by-effects. The Conservative and Liberal press in Sweden campaigned vigorously against the proposed terms, partly for political reasons, partly on the ground that Sweden's economy would be unable to bear such a strain.

In the midst of this controversy, the Riksbank (Central Bank) on July 12 suddenly raised the value of the Swedish Krona by 14 percent. The appreciation of the Swedish currency in relation to the dollar and the pound sterling was explained as a move to prevent threatening inflation in Sweden. Its immediate effect was to make imports cheaper, while Swedish export products became costlier—especially to the United States and Great Britain.

On August 25, the United States, in twin notes to Stockholm and Moscow, protested against the Swedish-Russian trade and credit agreement then under consideration. The notes complained that a bilateral deal of this type was liable to conflict with United Nations plans for expanded multilateral commerce. The protest was directed only against the commercial aspects of the proposed agreement, not against its credit features.

Sweden replied on August 29 in a note expressing surprise at the American protest and reiterating Swedish adherence to liberal and multilateral trade principles. At the same time, the Stockholm Government reserved "complete freedom of decision as to the opportuneness of concluding such bilateral agreements as well as of adhering to an eventual international commercial arrangement." The Soviet Government also rejected the American protest. Expressing "extreme surprise," the Russian note declared that "the Government of the Soviet Union and, as one may assume, the Government of Sweden, stand in no need to make a point of consultation with the United States on the favorableness or unfavorableness of a trade agreement."

The Swedish-Russian trade talks were resumed on September 4 in Moscow and led to the signing of a treaty on October 8. In its final form, the agreement differed but little from the original Russian proposals. Sweden extended to Russia a credit of 1,000,000,000 Kronor ($279,000,000 at the new rate), to be used up over a period of five years and repayable in fifteen years at an interest rate of 3 percent after the first three years. In addition, the two countries arranged for an exchange of goods valued at 100,000,000 Kronor annually. Swedish exports to Russia are to consist principally of high-quality steel products, electrical machinery, mining equipment, building materials, locomotives and trawlers. A joint Swedish-Soviet communique commented that the two countries desired "to develop their economic relations in accordance with their own interests as close neighbors." The treaty was finally ratified by the Riksdag in mid-November, despite continued strong opposition from certain industrial groups and newspapers.

The Economic Situation. Industrial production remained at high levels throughout the year. In the early part of the summer, the index of industrial activity stood at 129, taking the 1939 average as 100. Later in the year a slight recession occurred, due in particular to a serious labor shortage. At least 50,000 additional workers were needed, especially in the industries charged with fulfilment of the promised deliveries to Russia, and toward the end of the year plans were afoot to import a large number of workers from Italy and other foreign countries. The Europe-wide coal shortage also had a restraining influence on Swedish production.

There was a world-wide demand for such Swedish staples as wood pulp, high-quality steel products, machinery, ball-bearings etc. Shipments of iron ore, which had been almost completely halted when Germany collapsed were resumed on a fairly large scale, with the United States, Great Britain, France and Belgium as the principal customers. In contrast with 1945 there was uninterrupted peace on the labor front.

The food situation, too, was comparatively good, although the harvest in the western provinces was seriously damaged by floods in the fall. Rationing of foodstuffs in relatively short supply, such as bread, flour, butter, meat, and sugar was expected

to continue at least well into 1947. The total caloric intake of the Swedish consumer was among the highest in Europe—2,600 calories daily per person.

Sweden Joins United Nations. On June 27, the Riksdag voted unanimously to authorize the Government to apply for membership in the United Nations. The formal application was made on August 9 and was well received by both the Security Council and the General Assembly. On November 19 Sweden was definitively admitted to the United Nations as the 54th member.

Foreign Trade. In 1945 Sweden's imports were valued at 1,087,000,000 kronor (1,664,400,000 kronor in 1944); exports, 1,724,000,000 kronor (830,000,000 kronor). The principal import and export commodities were animal and vegetable products; minerals and metals; chemical products, drugs, dyes, lacquers, soaps, and fertilizers; hides and skins, rubber, textile materials; wood products, pulp, paper, etc.; machinery, transportation equipment, and instruments.

Finance. Budget estimates (for the fiscal year to June 30, 1946): revenue 3,208,988,000 kronor (3,186,400,000 kronor for 1944–45); expenditure 3,169,000,000 kronor (4,416,000,000 kronor). In 1943–44 actual revenue totaled 3,106,200,000 kronor; actual expenditure, 4,072,000,000 kronor. Expenditure (included in the foregoing figures) for national defense amounted to 2,030,000,000 kronor in the 1944–45 budget and to 2,122,000,000 kronor in 1943–44. The public debt increased from 2,634,000,000 kronor on June 30, 1939, to 11,550,000,000 kronor on Sept. 30, 1945. Currency notes in circulation on Sept. 30, 1945, totaled 2,567,000,000 kronor. The exchange rate of the krona from 1941–1945 was $0.2385; 16.90 kronor = £1 sterling.

Production. The bread grain crop (wheat and rye) for 1944 totaled 899,500 metric tons. Feed grain crops (barley and oats) for 1944 totaled 1,413,000 metric tons. The sugar beet crop in 1944 was 1,803,000 metric tons (1,868,257 in 1943) harvested from 136,000 acres. Potatoes harvested in 1944 totaled 1,448,700 metric tons. Among the other important crops are hay, fodder, roots, peas, beans, and vetches. Livestock (1944 census): 2,834,177 cattle, 1,041,074 swine, 599,490 horses, 551,830 sheep, and 9,055,916 chickens.

Mineral and metallurgical output during 1945 included coal, iron ore, pig iron, ferro-alloys, steel ingots, manganese ore, tungsten, copper, zinc, aluminum, peat, and shale oil. In 1944, 4,583,000 tons of iron ore were exported. Ball bearings, cream separators, lighthouse apparatus, telephone supplies, motors, and many kinds of electrical machinery are produced by the metallurgical industries. The public forests cover an area of 30,000 square miles. Wood-pulp output in 1943 totaled 1,240,000 metric tons. Other important industries are the manufacture of porcelain, glass, and textiles. In 1941 there were 18,757 industrial factories, with a total of 550,000 employees; total power used amounted to 6,463,673 effective horsepower.

Transportation. The roads of Sweden, on July 1, 1944, totaled 55,750 miles. At the end of 1944 the railroads totaled 16,717 kilometres, of which 11,177 kilometres miles were owned by the state. Commercial airlines link the chief cities and maintain services, together with foreign companies, with nearby foreign countries. The Swedish mercantile marine, on July 1, 1945, comprised 2,094 ships aggregating 1,569,141 gross tons.

JOACHIM JOESTEN.

SWIMMING. The postwar era in the aquatic sport was officially opened with the major indoor meets of last spring and members of the swimming fraternity, never too respectful of records, cracked marks with such rapidity that the record keepers had not caught up with them when 1946 drew to a close.

Ranked high among the individual feats of the year was the stellar performance of Joe Verdeur of the Philadelphia Turners in the national A.A.U. indoor championships at Bainbridge, Maryland. The Navy Specialist Second Class—but a first-class merman—won the 220-yard breast stroke and 300-yard medley titles, cracking one standard after another on his way to victory in the former event. In his trial heat of the 220, Verdeur hit the 200-yard line in 2:19.5 for a new world record and he was clocked in 2:35.6 for 200 meters, a time that clipped the universal standard for that distance. His 2:35 6 for the 220 yards surpassed both the meet and American records for the event.

In addition to his sparkling indoor triumphs, the Philadelphian swam off with the 200-meter crown in the national A.A.U. outdoor competition.

Ohio state made a sweep of team honors in the major indoor meets, capturing the Western Conference and A A.U. championships and retaining its National Collegiate Athletic Association laurels. Jack Hill, free-style expert and Miller Anderson, diving ace, were the most consistent scorers all year for the well-balanced Buckeye squad.

Jimmy McLane, 15-year-old Akron (Ohio) boy, hailed by many coaches as one of the greatest prospects of all time, added considerable luster to his reputation by scoring a triple in the national A.A.U. outdoor championships at San Diego. Jimmy swept the 400, 800 and 1,500-meter events and set a new meet record of 19.23.1 for the 1,500. His three victories equalled similar achievements by such aquatic greats as Johnny Weissmuller, Buster Crabbe, Jack Medica, Ralph Flanagan and Keo Nakama, but none accomplished the feat at an age comparable to Jimmy's.

The more photogenic members of the swimming cast were not bashful either when it came to smashing records and one meet alone, the women's national A.A.U. indoor championships at Seattle, saw 14 American and meet marks come tumbling down.

Once again comely Miss Ann Curtis, free-style star of San Francisco's Crystal Plunge Club, proved the dominant figure among the feminine swimmers. Although she lost her A.A.U. 100-yard title to Miss Brenda Helser of the Multnomah A.C. of Portland, Oregon, Ann retained her 220 and 440-yard laurels indoors, then repeated her triumphs of the year before in the 400 and 800-meter tests outdoors. Miss Helser also took the 100-meter crown outdoors when Queen Ann left that title undefended to enter the 1,500-meter race in which she won handily.

Among other naiads consistently in the sports headlines of 1946 were Misses Nancy Merki, Suzanne Zimmerman, Patricia Sinclair, Florence Schmitt and Zoe Ann Olsen, the last-named the best of the divers. Misses Merki and Zimmerman each annexed three national titles during the year while Misses Sinclair and Olsen each accounted for two.

THOMAS V. HANEY.

SWISS ARTS. The drastic isolation which Switzerland endured during the war has had numerous repercussions on her artistic life. For years her greatest sources of inspiration were cut off, and only he who knows what Paris means to the French-speaking Swiss, and what Florence or Rome, or Munich and

Vienna, meant ten years ago to the inhabitant of the Italian or German regions, can truly appreciate the feeling of frustration which the Swiss painter or musician must have experienced when suddenly left to himself.

This, however, gave him a chance to reexamine his own resources and, in so doing, to rediscover his native country. The Swiss artist was in the habit of imagining that the air of Paris or the light of Florence was indispensable to artistic creation. But he found that the Swiss landscape could inspire him, too. He had, of course, to adapt himself to the Swiss scale, which is small and sometimes narrow.

There were other consequences of this artistic autarchy. Special care was given to the classics and "editions de luxe," the Swiss applying all their traditional craftsmanship to this new task. How much they have succeeded will be left for American book lovers to judge when the Swiss Book Exhibition comes to the States in summer 1947.

The appearance of an indigenous Swiss motion picture art during this period should be mentioned. *Marie-Louise,* the story of a little French girl hospitalized in Switzerland, and *The Last Chance,* a report on the refugee drama, are now being successfully shown in several countries. These two films are genuinely Swiss. They have sprung, as it were, from the milieu and the moment, and in this they are fully in the tradition of Swiss art which is always closely linked to the life of the people.

Swiss artists may again go back to their Parisian studios. Again precious books and pictures can move across borders and, in spite of difficulty in transportation and communication, a lively exchange is going on. Only this year part of the collection of the London Tate Gallery has been shown in Berne, the treasures of the Milan Ambroisiana in Lucerne and those of the Austrian museums in Zurich. In September the "Rencontres internationales" summoned to Geneva some of Europe's keenest thinkers. Thus Switzerland is quickly resuming her traditional role as the center, the "carrefour" where artists, writers, scientists can meet, talk, and work in an atmosphere of frankness and civility.

In the eastern part of the country painting and sculpture seem in the ascendant. In fact, exhibitions follow each other in such rapid succession that it is difficult to keep track of all the new names. Among the coming painters let us mention Surbek, Lauterburg, and Ciolina, in Berne, Morgenthaler in Zurich; Pellegrini and Barth in Basle—all worthy successors of the older group: Auberjonois, Barraud, Blanchet, Cuno Amiet, and Giacometti. Sculptors such as Franz Fischer of Basle, Hubacher and Geiser of Zurich, and Remo Rossi of Locarno have all attracted a good deal of attention at the recent National Exhibition in Geneva (September 1–October 13).

This has been an eventful year for the music lover, too. Not only could he welcome Arturo Toscanini again and several famous international orchestras, but he was offered a wealth of new works by native composers. Othmar Schoeck gave a new cycle of songs: *Das Stille Leuchten* (*The Peaceful Glow*), Arthur Honegger his *Symphonie Liturgique.* During the Theatrical Weeks held in Zurich, the young composer Heinrich Sutermeister scored a well-deserved success with a new two-act opera, *Niobe.* Frank Martin, who recently left his native country to settle in Amsterdam, wound up a series of notable productions by the *Cornette,* a suite of twenty-three songs on a poem by Rilke. Frank Martin's reputation is growing rapidly, while names like Wissmer, Marescotti, Reichel, Oboussier, and Burkhard allow one to look confidently to the Swiss musical production of tomorrow.

In closing this all too brief survey of present-day artistic life in Switzerland, mention should be made of two particular points of interest. First the happy and, for Switzerland, unusual development of the feminine contribution to art and literature. This was remarkably illustrated on the occasion of the third Women's Congress in Zurich where Swiss women not only read from their books but staged a successful painting and sculpture exhibition of their own.

The attraction of Anglo-Saxon culture is powerful and general. Swiss artists look more and more towards England for guidance and inspiration. The influence of America is strongly felt, too, particularly in the field of literature. Of every three novels read in Switzerland now, one is almost sure to be American. More people are learning English than ever before and this is bound to have a growing influence on the artistic life of the country in the years to come.

SWISS LITERATURE. The increase of Swiss book production is still growing steadily. According to the statistics of the National Library at Berne, more than four thousand books were published in 1945 as compared to three thousand three hundred fifty-eight in 1943. Of these publications, two thousand six hundred thirty-eight were in German, ninety-nine in French, eighty-eight in Italian, seventeen in Raeto-Romansh, and sixty-six in other languages, mostly English, and thirty-one polyglot. A considerable number of these publications have been written by foreign authors who were condemned to silence in their own countries and by English and American writers of fiction.

Switzerland wanted to help those countries whose publishing processes had come to an almost complete standstill and was, moreover, stimulated by the earnest desire to resume cultural relations with foreign countries.

Translations of English and American books have become more and more numerous and are very popular in Switzerland. Some of these foreign authors have chosen Switzerland for their permanent home. Some are even naturalized Swiss, as for instance, Herman Hesse, who was awarded the Nobel Literary Prize for 1946. Two of his books *Steppenwolf* and *Death and the Lover* have been translated into English.

The Swiss authors seem to be interested in two lines: Some deal with our own Swiss problems: politics, education, and religion, namely, K. I. Naef: *Schweiz, das Herz Europas;* F. de Diesbach: *Vérité sur la Suisse* and W. Schmid: *Schweizerische Aussenpolitik gestern und morgen.*

Others try to help Switzerland in fulfilling her self-chosen task—her "European Mission." Stressing humanistic tendencies, expounding the lasting values of old European culture, teaching the world her Swiss conception of true freedom and tolerance, and contributing what her centuries-old tradition enables her to give, typified in the following: A. V. Martin: *Nietzsche und Burckhardt;* W. J. Oehler: *Ueber die Mauern hinaus,* A. Keller: *Zeitwende;* C. Eichelberg: *Auftrag Technik;* R. Grob: *Schlagwort oder Glaube;* H. Luthy: *Bis zur Neige,* and W. Ruegg: *Cicero und der Humanismus.*

Every domain of learning, art, culture, and poetry is represented: philosophy and psychology, religion, law, economics and social sciences, politics, education, school textbooks, children's books, literature and language, natural sciences and mathe-

matics, medicine, architecture, technology, agriculture, domestic economy, fine arts, music, fiction, history, biography, geography, travel, mountaineering.

Before the war, books of fiction amounted to 20 percent of entire book production, but now to even more than 30 percent. There are two principal groups: The traditional Swiss novel, depicting Swiss people, customs, nature; and the novel of psychology, which deals with all kinds of problems in love, marriage and life. The bulk of these books have a moral tendency, as pointing out, for example, the dangers of egotism or the importance of self-sacrifice. Under this classification fall: G. V. Planta: *Die Wetter Arve;* F. V. Caviezel: *Silvia Marugg;* O. Feier: *Menschen im Tal;* H. Zullinger: *Die 7 Geschichten vom schlauen Balz;* Maurice Zermatten: *Christine;* L. Schips-Lienert: *Der Himmelswagen;* J. Frohmeyer: *Judith.*

In the domain of education, school textbooks and children's books, the output is steadily increasing. Switzerland wants to supply her children with a good, solid education. The *Editiones Helveticae,* a collecton of inexpensive textbooks for use in schools is the result of the collaboration of several Swiss firms. In the same line of development, belongs the attempt to popularize the literary heritage of Europe by means of the cheap editions of the Birkhauser Verlag as: C. T. Jung: *Psychologie und Erziehung* and R. Kolb: *Demokratische Erziehung.*

The national food emergencies during and after the war caused a great number of publications on agriculture to appear, for example: A. Schmid: *Das Zeitbild der Schweizer Rinderzucht;* O. Howald: *Arbeitstechnik im Bauernbetrieb;* and Chavannes/Demont: *Le contrôle du lait.*

The general inner tension, the mental fear, doubt, and despair prompted books on religion and art as both provide peace and oblivion. The following are typical: R. Gutzwiller: *Grundlagen einer Neuordnung;* O. Schuepp: *Schopfungsbericht;* M. Geilinger: *Vom grossen Einklang;* P. de Chastonay: *Introibo;* H. Ball: *Die Flucht aus der Zeit;* O. Bauhofer: *Der Mensch und die Kunst;* H. Jenny: *Kunstführer der Schweiz;* M. Ott: *Das Ornament im bauerlichen Kunsthandwerk des Kantons Appenzell;* A. E. Cherbuliez: *J. S. Bach,* and W. Reich: *Bekenntnis zu Mozart; Das Atlantisbuch der Musik.*

The books of science are an essential and indispensable requirement to the scientists. Several publishers concentrate their efforts in publishing the necessary number of this type of book. For the natural sciences and medicine, law and sociology, many new plans are about to be put into effect. The Swiss scientific books are written by the best scientists, carefully planned and executed, based on rich experience and modern research. Switzerland tries hard to fill the big gap left by the standstill of German production. In the above-named category fall the following: M. Saegesser: *Spezielle chirurgische Therapie;* R. Brun: *Allgemeine Neurosenlehre;* Baumgartner/Riva: *Panikulitis, die herdförmige Fettgewebeentzündung;* Brandenberger/Schmiz: *Ueber die Natur der Verkalkungen bei Mensch und Tier;* R. Leriche: *Die Chirurgie im Einklang mit dem Leben;* E. Abberhalden: *Lehrbuch der physiologischen Chemie;* and E. Zwingli: *Versicherungsmathematik.*

The books about the various professions, such as crafts, trade and commerce are rapidly developing and increasing in number. Many new schools have been opened and there is a large demand for books. The Swiss worker, famous for the high quality work, has to keep pace with technical progress. Typical of such books are the following: W. Gruss: *Die Auswahl des reisenden Verkaufers;* A. Lombard: *Der Massivmöbelbau;* E. Gut: *Die Geheimnisse der Eisenbahn;* H. Flury: *Buch-und Bilanzprufung;* Elektrowirtschaft Zurich: *Elektrizitat und Bauen;* L. Bellmont: *Das Buch vom Telephon;* A. Bruckner: *Schweizer Stempelschneider und Schriftgiesser;* Rüst/Schoch: *Warenkunde und Industrielehre;* and J. Zimmermann: *Betriebsfuhrung im Detailhandel.*

The Swiss illustrated book maintains a high standard and careful execution. M. Hurlimann says in his article on: "Switzerland and Swiss Books": "Illustrations by living artists have been introduced into popular editions. Particular skill has been developed in the printing of illustrations. Today art publications and various periodicals bear witness to what can be done by rotogravure, offset and blocks, monochrome as well as polychrome." And H. Lehmann-Haupt writes in: "Notes on the Exhibition" (International Book Illustration 1935–1945). "Some of the most progressive graphic work comes from Switzerland. It would be difficult to find another country where trade books at moderate price levels are illustrated with so much character, beauty and technical competence." Illustrative of this skill are: A. Baur: *Cuno Amiet;* Rudolf Koller-Mappe, H. Zbinden: *A. Anker;* Gradmann & Cetto: *Schweizer Malerei und Zeichnung im 17. und 18. Jahrhundert;* M. Racher: *Schweizer Maler aus dem 15. Jahrhundert;* P. Meyer: *Schweizer Munster und Kathedralen des Mittelalters;* O. Fussli Verlag: *Die Lithographie in der Schweiz und die verwandten Techniken 1894–1944.*

Swiss poetry has experienced a great spurt forward. After the big breakdown of this period many poets want to communicate what they have suffered and to praise what they have admired. Modern Swiss poetry stresses, in many respects, a deeply religious attitude. The following are typical: H. Hiltbrunner: *Heimwarts;* E. Schneider: *Ich suche Dich;* Urs Martin Strub: *Lyrik.*

The periodicals play a rather important role in intellectual Swiss life. The scientific periodicals have met with great interest abroad. The five subjects most frequently dealt with in Swiss periodicals are: sixteen literary reviews, history of literature, philology; twenty-six periodicals about law, economics and political sciences; thirty periodicals about medicine, hygiene; twenty-three periodicals about architecture, technology; thirteen periodicals about fine arts, history of art.

A bold enterprise, the Swiss Encyclopaedia *Schweizer Lexikon,* in seven volumes, the first of which appeared in 1945 manifests an impartial objective attitude.

The two striking features of recent Swiss book publications are: the many books of world-wide interest and the high standards of production. There is also much more stress laid on the outward appearance of the books which have to be aesthetically satisfying. One general tendency of Swiss publishers is to grant every opinion, language, and culture their hospitality, to reflect the world and acknowledge no limits of time or space.

To make known Swiss intellectual life, culture, outlook, and aspirations as reflected in Swiss books, some exhibitions are planned for 1946 and 1947. A general book exhibition has taken place at London (April–May 1946) and an exhibition of illustrated books at New York (September–October), sponsored by the American Institute of Graphic Arts.

DORA C. VISCHER.

SWITZERLAND. A federated republic in west-central Europe. Area: 15,944 square miles. Population (June 1945 estimate): 4,403,000, compared with (1941 census) 4,265,703, Vital statistics for 1945 (rate per 1,000): births 20.1, deaths 11 6, marriages 8.1, infant mortality (deaths under one year per 1,000 live births) 41. Chief cities (1941 census): Berne, the capital, 130,331; Zurich, 336,-395; Basel (Basle) 162,105; Geneva 124,431; Lausanne 92,541; St. Gallen 62,530; Winterthur 58,883; Lucerne (Luzern) 54,716.

Education and Religion. Education is compulsory, the school age varying in the several cantons. Primary education is free. In 1944–45 there were 441,476 students in primary schools, 74,447 students in secondary and lower middle schools, and 12,182 students (1945–46) in the universities. Religious affiliations (1941 census): 2,457,242 Protestants; 1,754,204 Roman Catholics; and 19,429 Jews.

Production. Agricultural pursuits employ 20.8 percent of the population. Twenty-two percent of the land area is unproductive. The main crops (1945; in metric tons) were: wheat 223,000, potatoes 1,613,000, fruit 460,000, sugar beets, and vegetables. Livestock (1946): 1,472,226 cattle (including 815,482 cows), 654,253 pigs, 206,459 goats, 194,759 sheep, and 151,941 horses In 1945 the output of milk totaled 560,042,000 U.S. gallons.

Minerals produced included salt, iron ore, aluminum, and manganese. Manufactures of importance include watches, clocks, machinery, textiles, electric equipment, chemicals, shoes, cheese, condensed milk, etc. In 1945 a total of 435,603 employees were employed in the 9,537 factories. The output of peat in 1943 totaled 420,000 metric tons. In the same year the production of beer reached 22 million gallons.

Foreign Trade. In 1945 imports were 1,225,000,-000 Swiss francs (1,186,000,000 in 1944); exports 1,474,000,000 Swiss francs (1,132,000,000 in 1944). The main trading countries in prewar times were Germany, France, Italy, Great Britain, United States, and Argentina. A great deal of the trade with frontier countries is transit trade.

Finance Budget (1946): ordinary revenue 331,-200,000 francs, extraordinary revenue 1,516,100,-000; ordinary expenditure 691,100,000 francs, extraordinary expenditure 1,676,500,000 francs.

Government. The Constitution of 1874 provides a republican confederation of 22 cantons or States. The Federal Assembly consists of two chambers; one, the Council of States, is composed of 44 members—two from each canton; the other chamber, the National Council, has 194 members, all elected quadrennially by the obligatory vote of males who have attained 20 years of age. The Federal Council consists of seven members, all elected quadrennially by vote of the united chambers of the Federal Assembly; by similar vote, but annually, are chosen, from among the seven, a President of the Confederation and a Vice President of the Federal Council. Each of the Federal Council's seven members is assigned to the direction of one of the seven Federal administrative departments. During 1946 the President was Dr. Karl Kobelt. President for 1947: Dr. Philippe Etter of Zug canton. Vice President for 1947: Dr. Enrico Celio.

Events. *Back to Normalcy.* As a traditionally neutral federal democracy, the Swiss community constitutes a self-sufficient polity, little affected by the tides of radicalism and reaction afflicting all its neighbors. But as a highly industrialized land, dependent for the livelihood of its people on imports of raw materials, foodstuffs, metals, coal, and tourists, and on exports of manufactures, on scenery and hospitality, the Swiss community is a far from self-sufficient economy. Its government leaders were primarily concerned in 1946 with efforts to restore foreign trade—and, as means thereto, to settle the controversies growing out of the war and to counteract the impression entertained by many abroad that Switzerland had waxed fat through aid to the Axis and had since become a haven for Nazi funds.

Restoration of foreign trade was facilitated by a series of loan agreements, of which the most important was the Anglo-Swiss accord concluded early in March. By its terms Britain obtained a Swiss credit of 250,000,000 francs ($60,000,000), in return for which London agreed to increase its purchases of Swiss exports and to permit tourists to exchange pounds for francs up to £100. The Swiss Government reserved 800,000,000 francs for such credits, the objective of which was to increase foreign purchases of Swiss goods. The value of Swiss exports during 1946 was almost double that for 1945 and was well above the prewar figures in value, though not yet in volume. In May, 1945, 6,650 foreigners registered in Swiss hotels. In May, 1946, the figure rose to 100,500 The country escaped almost all the economic ills of its neighbors and enjoyed a high degree of prosperity which promised to increase in 1947.

Capitalism in One Country. Switzerland, like the United States, promoted its export trade by making loans abroad. And just as America remained the only Great Power in the world community still committed to *laissez-faire* and a relatively unregulated free enterprise system, so Switzerland remained the only country on the Continent which resisted the trend toward socialization and national economic planning. The Communist Party, outlawed in 1940, remained outlawed. Despite gains in cantonal elections by the "Party of Labor" (allegedly the successor to the Communists) the basic conservatism of the Swiss people found expression in a variety of ways.

The special wartime powers exercised by the Federal Government were largely abolished during the year, along with many forms of public control over economic life. In local referenda, votes for women were rejected by large majorities in Geneva, Ticino, Zurich, Basle, and other cantons Early in December the cantons and the electorate decisively rejected an initiative proposition aimed at including a guarantee of the right to work in the Federal Constitution. On December 16 the National Council, 108 to 50, recommended the rejection of various Socialist proposals for economic reforms. A program of old-age insurance was approved by both houses of the Federal Parliament and would be submitted to popular referendum early in 1947. But the general trend of Swiss opinion toward a view of the economic and social order comparable to that of American ultra-conservatives was unmistakable.

This ideological affinity between Wall Street and Berne might have been expected to promote American-Swiss cordiality and Soviet-Swiss friction. Curiously enough, the actual pattern of Switzerland's foreign relations exhibited the reverse of any such expectation. Moscow, as always, was quite prepared to do business with capitalists if the capitalists were prepared to do business. But Washington and Berne quarreled over business (see below) and indulged in shrewd bargaining which did not make for official cordiality.

Relations with the Soviet Union. Switzerland's tangled ties with the major United Nations were

partially unraveled during 1946. On March 19 diplomatic relations were formally established with the Union of Soviet Socialist Republics for the first time since the rupture of 1924. Mutually advantageous trade arrangements with Poland and Hungary were concluded soon afterward, affording new markets for Swiss machine tools, drugs, and textiles and making available new sources of coal, iron, zinc, timber, bauxite, and fodder. In August a new company was formed with 60 percent Swiss capital and 40 percent Soviet capital (invested through a Rumanian corporation) to take over the distribution of Rumanian oil products in the Swiss market. The arrangement was apparently satisfactory to all concerned save Royal Dutch Shell and certain American oil companies which, before the war, held important properties in the Rumanian oil fields and dominated the market for petroleum products in Switzerland.

Earlier anticipations that the resumption of relations with Moscow might contribute to the establishment of the United Nations in Switzerland were disappointed, however, not by virtue of Soviet policy, which now favored the idea, but because of decisions reached in Berne and New York. In June the Swiss Government informed United Nations that it could not allow meetings of the Security Council in Geneva in view of the danger that action ordered by the Council from Swiss soil might be considered a breach of Swiss neutrality. Similar considerations continued to deter Berne from making application for Swiss membership in United Nations.

By agreement among all concerned, Switzerland placed the former premises of the League of Nations in Geneva at the disposal of United Nations for the possible establishment of European headquarters, with the qualification that no military operations were to be conducted from Geneva. The International Labor Organization made plans to return to Geneva. On December 11 Switzerland became a member of the International Court of Justice by vote of the United Nations General Assembly. The Republic also joined the United Nations Food and Agriculture Organization and participated in the Paris conference of UNESCO.

The Problem of German Assets. Allied pressure on Switzerland to turn over German-owned assets to the Allied Control Council ruling the Reich and to provide for their liquidation on reparations accounts continued to meet with Swiss resistance (see YEAR BOOK for 1945, pp. 594–597). Walter Stucki of the Swiss Federal Council, head of the Foreign Affairs Division of the Federal Political Department, arrived in Washington in mid-March at the head of a delegation including Professor William E. Rappard. In the ensuing negotiations the Swiss spokesmen reiterated that their Government was under no obligation under international law to transfer such assets and was prevented by Swiss law from doing so in many instances. To American estimates of total German assets of $750,000,000 in Switzerland, Berne's representatives replied that the total was only $250,000,000—to which Switzerland was entitled as a means of settling the German deficit, of almost exactly equivalent amount, in the wartime German-Swiss clearing agreement. Dr. Stucki, however, waived this deficit claim on March 26.

In the protracted parleys which followed, the Swiss delegates continued to resist Allied demands but were impressed with the facts that the United States was still blocking $1,500,000,000 of Swiss assets in America and maintaining its wartime blacklists against many Swiss firms. "Nothing will move us," wrote the *Basler Nachrichten* in April. "We will not yield to pressure or relinquish our sovereign rights.'" Finally on May 25 an accord was reached in Washington whereby Switzerland agreed to transfer 50 percent of fugitive Nazi capital to the Allies and turn over $58,140,000 of the $90,000,000 of stolen gold deposited by the Nazi authorities in Switzerland during hostilities. Disputed cases were to be deferred to arbitration. But inquiries from Washington regarding the implementation of the accord remained unanswered until the end of August. As a result, Swiss assets in the United States continued to be blocked until the signature in Berne of a further agreement on November 10. Switzerland agreed late in November to reveal the names of German and Japanese nationals with accounts in Swiss banks, but still refused to comply with American demands for the names of Austrian, Hungarian, Rumanian, and Bulgarian depositors. Many details of the compromise settlement still remained to be worked out at the end of the year.

Rescue Party. The friction engendered by these controversies was pleasantly relieved, at least so far as Swiss and American opinion was concerned, by the dramatic episode of late November near the summit of the Gauli Glacier above Meiringen. Here a Dakota C-53, carrying twelve Americans, made a crash landing on November 19. Due to the inaccessibility of the site, at an elevation of 11,000 feet, the passengers, several of whom were injured, were obliged to spend five days and nights on the ice. Swiss planes dropped supplies and radio equipment. A sixty-man rescue squad finally reached the scene and two Swiss ski-planes, in nine shuttle trips, rescued the marooned travelers while millions of vicarious participants in the perilous adventure cheered in both countries.

FREDERICK L. SCHUMAN.

SYRIA AND LEBANON. Two Arab republics, also known as the Levant States, on the east coast of the Mediterranean between Turkey and Palestine. The mandate over them was conferred on France by the League of Nations on July 24, 1922 Their independence has been proclaimed on several occasions since 1941, and had become complete by the end of 1946. The area of Syria and Lebanon together is about 57,900 square miles Damascus is the capital of Syria, and Beirut of Lebanon

Population. The population of Syria in 1943 was 2,860,411, and of Lebanon, 1,047,745. The principal cities, with their estimated populations are: Damascus, 275,000, Aleppo, 265,000; and Beirut, 250,000. The population of Syria, and more particularly of Lebanon, is far from homogeneous, either racially or religiously. Although Arabic is the official language and is spoken by the majority of the inhabitants, there are important minorities of Armenians, Circassians, Jews, Turks, Turkomans, Kurds and others, including Europeans.

In Syria the majority is Moslem, mostly Sunni. In Lebanon the Christians constitute from 55 percent to 60 percent of the population, but are divided among themselves into various sects of which the Maronites, Greek Orthodox, Greek Catholics (Uniates), Armenians and Melkites are the most important numerically (in the order named). These and other denominations are also found in smaller numbers in Syria. Each of these churches has its own ecclesiastical organization and hierarchy. Altogether the racial and religious mosaic of which the two republics consist is a fruitful source of political complications, both domestic and foreign.

THE UNITED NATIONS GENERAL ASSEMBLY

Above: President Truman addresses the United Nations delegates at the first meeting of the General Assembly in the United States at Flushing Meadows, New York, October 23, 1946. *Inset:* Trygve Lie, Secretary-General of the United Nations. *Below:* The New York City Building, at the old World's Fair, Flushing Meadows, which served as the General Assembly's meeting place (*Photos by United Nations*).

TWO UNITED NATIONS MEETINGS

Above: Colonel Mohammed Bey Khalifa of Egypt conducts the sixth meeting of the Atomic Energy Commission at Lake Success, New York. *Below:* Secretary of State James F. Byrnes addresses the opening session of the Security Council at Hunter College, New York. (*Official United Nations Photos*)

INTERNATIONAL HEALTH

The International Health Conference in New York: Dr. Thomas Parran, of the United States, third from left, was chairman. (*Official United Nations Photo*)

United Nations Photo

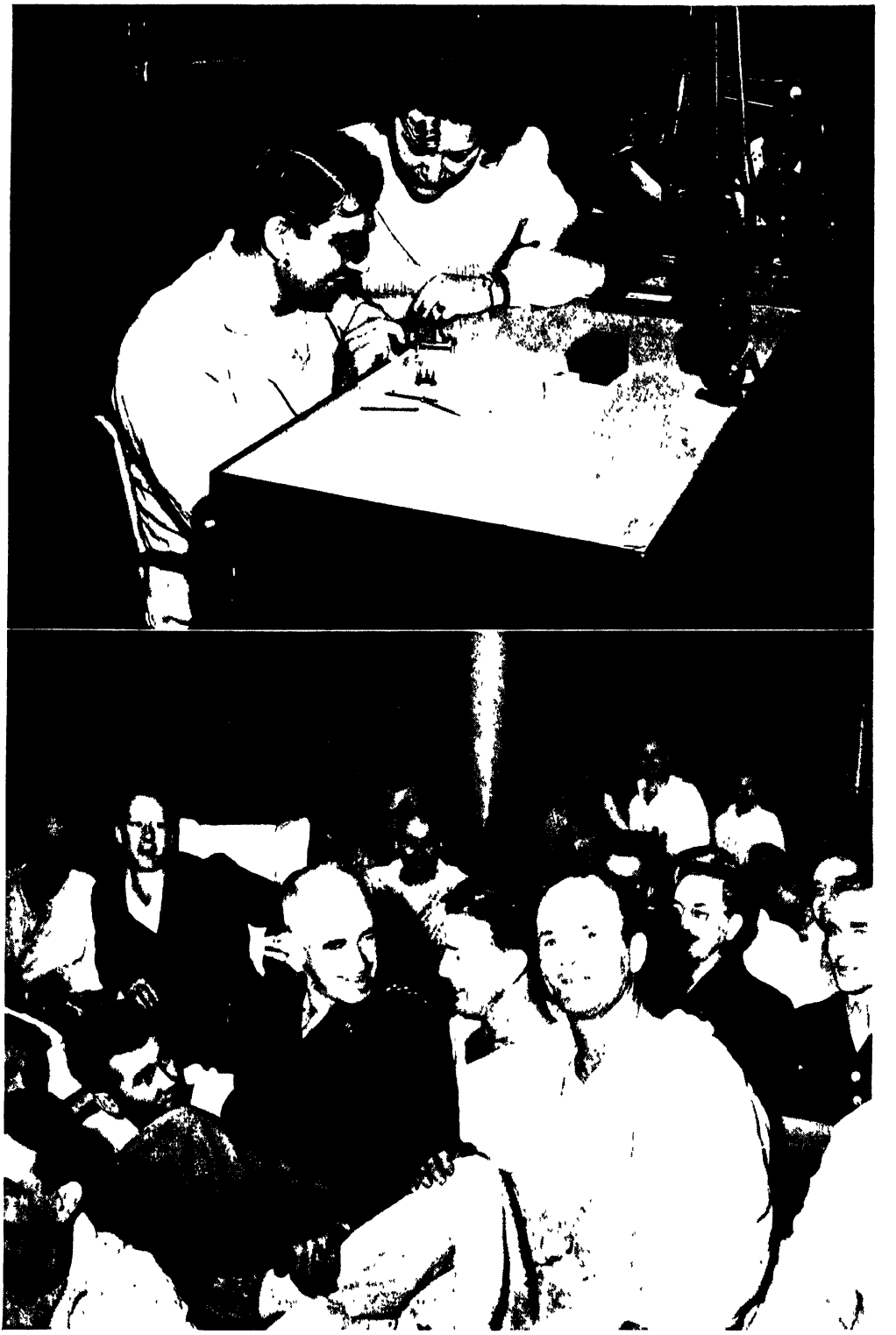
FUTURE UNITED NATIONS HOME View of the site chosen for United Nations permanent headquarters, taken from Tudor City at 41st Street looking north to 48th Street, New York

Acme

ANNUAL MESSAGE President Truman delivers his State of the Union message to a joint session of Congress, January 6, 1946.

UPHEAVAL IN THE SOUTH

Above The Georgia battle for Governorship which started in December, 1946, upon the death of Governor-Elect Eugene Talmadge, December 21, 1946, reaches a dramatic moment as Ellis Arnall (left) and Herman Talmadge (right) face each other in the Governor's office of the State Capitol, Atlanta, Georgia. *Below.* Senator Theodore Bilbo, of Mississippi, leaves his office for the United States Senate chamber where he faced such opposition that he was temporarily prevented from taking his seat (*Photos by Acme*)



AFTER THE WAR

Above: A disabled veteran learns watchmaking in a Veterans Administration Hospital in Virginia. *Below:* General Omar N. Bradley, Administrator of Veterans Affairs, meets patients in a Veterans Administration Hospital, Bronx, New York. (*Veterans Administration Photos*)

Federal Public Housing Authority

POSTWAR VETERANS' HOMES

Temporary Roger Young Villages at Los Angeles, California.

National Park Service

NEW NATIONAL PARK

Storm King Mountain and Lake Crescent in the 848,212-acre Olympic National Park, Washington, opened on June 15, 1946.

A. A. F. Photo

PIONEER HONORED

Colonel C. S. Irvine, commander of the *B-29 Pacusan Dreamboat* that flew from Hawaii to Cairo over the Polar Regions, receives the Distinguished Flying Cross from General Carl Spaatz.

Education is provided by both government and private schools. The latter are sponsored by the various religious communities and by foreign missionary and cultural organizations. In Lebanon the Christian schools far outnumber those operated by the State and the Moslems. The contrary is true in Syria. At Beirut there is the American University and the French Catholic Université de St. Joseph, each offering a varied curriculum. Higher education in Syria is provided by the Arab University at Damascus.

The Country and Its Economy. Lebanon is a small country consisting of a narrow coastal plain and the Lebanon range which rises immediately behind it. There is little room for agriculture except in small tracts, many of which are terraced. However, rainfall is more plentiful here than in the interior. The central valley of Syria is fertile and relatively well watered. But east of the Anti-Lebanon Mountains the desert begins, and here nomadic pasturing and oasis culture are the rule. Little of the original forest cover remains on the mountains of either country, the famous Cedars of Lebanon being all but extinct.

The principal products of the soil, and their estimated output for both countries in 1943 were: wheat, 624,280 metric tons, barley, 330,485 metric tons; grapes, 292,622 metric tons; olives, 134,339 metric tons; figs, 54,178 metric tons; sorghum, 44,246 metric tons Figures for the same year showed 2,492,000 sheep, 1,573,000 goats, 490,000 horses, 287,000 donkeys and 54,000 camels

Few minerals are exploited, and these in small quantities Further geological exploration may reveal resources not now known. Factories are few and on a small scale, but political independence will very likely lead to increased industrialization. One of the pipelines from the Kirkuk oil field terminates at Tripoli in the Lebanese Republic.

Foreign trade figures for 1943 gave imports a value of 246,171,000 Syrian Pounds and exports as worth 168,065,000 Syrian Pounds. The two principal ports, both in Lebanon, are Beirut and Tripoli There are over 1,000 miles of railroad, including the Syrian segment of the Istanbul-Baghdad line, the Aleppo-Damascus line, the Homs-Tripoli-Beirut-Haifa line (completed during the recent war) and the narrow gage Mecca railway running south from Damascus to Trans-Jordan. Beirut and Damascus are connected by a narrow-gage, partly cog-wheel line, but the highway now carries much of the traffic between these points. Several of the great inter-continental airlines pass through Syria

Government. For the prewar political status of Syria and Lebanon under French mandate see the YEAR BOOK for 1941, p 638. For political developments since 1941 see the YEAR BOOKS for 1942 et seq. Each country is now recognized as an independent republic with its own constitution. Each has a President and a Parliament. Following the agreement of Dec 27, 1943, between the French Committee of National Liberation and the two republics, there took place a gradual transfer of certain powers and functions from the former to the latter. This process was completed by the events of 1946 (see below).

Events. By all odds, the outstanding development of the year in the two Levant States was the final attainment of independence, marked specifically by the departure of French and British military forces. The year did not, however, begin too auspiciously, with the arrival of a small detachment (ca 200) of Senegalese troops to replace some of the 600 French soldiers who had been evacuated from the two countries during the previous three months. At the same time the Syrian Deputies voted unanimously to protest to the United Nations against the continued presence of foreign troops. Some 2,000 French troops in Syria were confined to their barracks when, on January 2, the inhabitants of Damascus, Beirut, and Aleppo carried out a general strike against the military occupation.

While both Britain and France were committed to getting out of the Levant States, they were not in accord as to the time-table. There were far more British troops in Syria than French, and originally the British intention seems to have been to move their units from Syria to Lebanon, and evacuate the latter only when the French were ready to go. The Levant States themselves favored this plan, as a guarantee for eventual French withdrawal However, early in January it was learned that the British were expecting to remove their troops directly from Syria to Palestine and that they had also been asked to evacuate Lebanon.

In any event, it was obvious that the days of French political and military importance in the Levant were over, and that even her cultural influence was waning, especially in Syria. Relations with the latter were so bad that there was no hope whatever of obtaining a treaty of alliance similar to that of Iraq with Breat Britain, whereby France might retain use of certain bases and other facilities To what extent British influence would supplant that lost by France remained to be seen Some observers noted that a number of British officers appeared to be entering the service of the two Republics.

On February 5 the Lebanese and Syrian Republics, invoking Article 34 of the Charter, asked the United Nations Security Council to recommend the "total and simultaneous evacuation" of French and British troops from their territories. On February 14 the Council sought to take up the question but got bogged down in procedural disputes. On the following day French Foreign Minister Bidault and the British representative on the Security Council, Sir Alexander Cadogan, promised that the Anglo-French agreement concerning the withdrawal of their troops from the Levant States would be carried out The United States suggested that the dispute be settled by direct negotiations. On February 16 Syria and Lebanon agreed to accept the Anglo-French engagement to withdraw, but the Soviet delegate vetoed the American proposal, thereby only confusing matters needlessly. On February 18 the British and French governments drafted identical directives for their military representatives in order to speed up their negotiations concerning the details of how and when the Levant States were to be evacuated

Finally on March 1 delegates from Britain, France, Lebanon, and Syria met in Paris. At that time there were believed to be 11 000 British and 1,700 French troops in Syria, and 9,000 British and 8,000 French troops in Lebanon By March 4 it was announced that Britain and France had agreed to withdraw their troops from Syria by April 30, and that this movement of forces would commence March 11. Six days later the conference decided that Britain would evacuate Lebanon by June 30, and that the French forces would be out by April 1, 1947. The reason for waiting a full year was explained by technical considerations, such as the necessity of going by sea (when ships were very scarce) and the existence of a vast amount of matériel and installations erected during some twenty-five years of French rule, which could not easily

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be dismantled and removed. In reality the French soon found it advisable to advance the date of their evacuation, so that by September 1 only thirty officers and 300 men in civilian dress remained in Lebanon.

Meanwhile, April 17 had been celebrated as a gala day throughout Syria, for it marked the departure of the last French troops two weeks ahead of schedule. On hand to join in the festivities were Abdul Rahman Azzam Pasha, Secretary-General of the Arab League, and other dignitaries from neighboring states. The Kuwatly Ministry resigned on April 25, the parliament was dissolved, and elections were called in order that the Syrian people might vote in their new-found freedom. Great Britain informed the Security Council on May 3 that its troops would be out of Lebanon by June 30 except for a "small liquidation force." This promise was carried out to the letter, and by September 30 even this small staff had been withdrawn, thus bringing to a conclusion the British occupation of the former French mandated territories.

The attainment of complete independence encouraged the two Republics to lay plans for reviving and developing their economies. In Syria the program called *inter alia* for the modernization and expansion of irrigation on the Euphrates and for the importation of all sorts of machinery and tools. All this of course would require money, which the Syrian government hoped to borrow from the United States Export-Import Bank, with the expectation of repaying the loan with agricultural exports. However, it was reported in September that American negotiators were experiencing difficulty at Damascus in discussing oil pipeline and air transport agreements at Damascus with the Syrian authorities because of the pro-Zionist stand of the United States government.

The economic situation of Lebanon was somewhat more fortunate than that of Syria. It had no debt and its treasury showed a surplus, though inflation was causing some anxiety in financial circles. Reliance was placed on the country's strategic commercial position, its tourist attractions and its fruit production as a means of creating foreign exchange with which the needed imports could be bought.

On April 8 the Vatican recognized the independence of the Lebanon. At the other end of the political spectrum it may be noted that on September 9 the first Lebanese Minister to the Soviet Union left for Moscow. The Lebanon was one of the few Middle Eastern countries where a Communist organization of any importance was operating. Dispatches from Beirut early in February reported that eight offices had been opened there in order to register Armenians who wanted to go to Soviet Armenia. By the 3rd there were 8,000 registrations and many more were expected by the time the lists were closed on the 28th. Fears were expressed among the Christian element that this emigration would still further reduce their already tenuous majority over the Moslems in the Republic.

A report from Beirut at the beginning of November stated that the Lebanese government had agreed to purchase the British-built wartime railroad between the Palestine border at Ras en-Nakura and Tripoli, for five million Lebanese Pounds, payable in seven yearly instalments.

On December 15 the composition of a new cabinet, led by Riad es Solh as premier, was announced in Beirut. On December 28, after long inter-party negotiations, a new Syrian cabinet was announced in Damascus, headed by Jamil Mardam Bey, the Nationalist leader.

During the year Lebanon served as a member of the United Nations Economic and Social Council, and in December Syria was elected to the Security Council.

ROBERT GALE WOOLBERT.

TANGANYIKA. A territory in East Africa administered, since 1919, by Great Britain under a League of Nations mandate. Area, 360,000 square miles. Population (1944 estimate), 5,499,739, of whom 5,437,069 are natives. Capital, Dar-es-Salaam (74,036). In 1946 the territory was recommended by Great Britain for United Nations trusteeship and accepted. The territory is administered by a governor with the assistance of an executive council and a legislative council. Schools for Europeans and Africans are maintained by the government and the majority of Indian schools are given grants in aid.

Production and Trade. The territory has extensive forest areas producing camphor, mvule, mahogany, and other woods. Agriculture, the chief occupation of the people, furnishes a variety of cereals, vegetables, and fruits for home consumption as well as the country's chief export, sisal. In 1944 Tanganyika exported 111,848 tons of sisal, or about one-third of the world supply. Cotton, coffee, and hides and skins are also exported in quantity. The chief imports are cotton goods and iron and steel products.

TANGIER. An Internationalized Zone in northwestern Morocco at the Atlantic entrance to the Strait of Gibraltar. Area, 225 square miles, and population (1941), about 100,000. Over half the population dwells in the city of Tangier.

Tangier forms part of the Empire of Morocco, the Sultan being represented there by a Mendoub. For a description of the regime set up by the Tangier Convention of Dec. 18, 1923, as amended on July 25, 1928, see YEAR BOOK for 1941, p. 729. This international government was overthrown on June 14, 1940, when troops from Spanish Morocco occupied the Zone, ostensibly to guarantee its neutrality. For further details see YEAR BOOK for 1944, p. 610. In 1945 representatives of the United States, Great Britain, France, and the Soviet Union met in Paris to revise the statute governing Tangier, but failed to reach an agreement (see YEAR BOOK for 1945, pp. 599–600). The official languages in the Tangier Zone are French, Spanish, and Arabic. The education of the native Moslems is left largely to the Koranic schools, though both the French and Spanish authorities maintain several educational institutions, to some of which natives are admitted.

The Tangier Zone has very little agricultural production and must import much of its food. Through its port, however, passes a considerable transit commerce, much of which is carried over the railway to Fez and other points in the French Zone. As a rule imports exceed exports in a ratio of eight or more to one.

Events. The provisional international administration of Tangier, as set up in an agreement signed at Paris on August 31, 1945 (see YEAR BOOK for 1945, pp. 599–600), continued to function throughout the year. It had originally been planned that a more permanent arrangement should be negotiated during 1946. But the preoccupation of the Great Powers with the European peace treaties, and the uncertain diplomatic situation of Spain, no doubt made it seem advisable to postpone the regulation of Tangier's status to a more propitious moment.

This provisional international administration was headed by Admiral Magalhaes Correia of the Portuguese Navy. In the legislative assembly, France and Spain had four members each; Britain and Italy three each; the United States, Belgium, the Netherlands and Portugal one each. The natives were also represented by several members, chosen by the Mendoub, who in turn was the creature of the Sultan of Morocco. The Committee of Control consisted of a consular representative from each of these Powers. Under the agreement of August 1945, the Soviet Union was entitled to have a consular official at Tangier and a member in the legislative assembly. But Moscow showed no hurry about filling these posts, presumably because it was unwilling to have Soviet representatives sit alongside those of Franco Spain.

There was some complaint in Tangier that, though the administration was ostensibly international, it was in reality under thinly disguised French control. In addition to the French votes in the assembly, those of the natives were, it was asserted, subject to orders from the Sultan of Morocco, that is to say, from the French officials at Rabat. The Moorish nationalist movement operated in Tangier as one of its principal headquarters and published a newspaper with a substantial circulation (see SPANISH AFRICA). In mid-September the authorities at Gibraltar sent a small vessel with troops to Tangier "to protect British interests" there in view of a threatened Moorish demonstration.

Economically, Tangier enjoyed a relatively prosperous year. In addition to its favorable location on the Strait of Gibraltar, its low customs duties and its freedom from the scars of war, the International Zone also offered, because of its peculiar legal status, a haven for refugee capital.

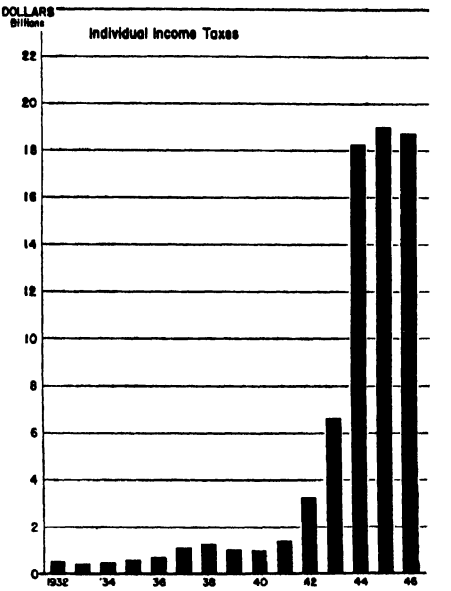
ROBERT GALE WOOLBERT.

TARIFF COMMISSION, U.S. An independent nonpartisan agency of the U.S. Government, created in 1916, which investigates and reports upon tariff matters. It also handles cases of unfair practices in import trade. The Committee makes such investigations and reports and furnishes such information as may be required by the President, the House Ways and Means Committee, the Senate Finance Committee, or either branch of Congress. The work of the Commission falls into two groups, general administration and auxiliary services under the Secretary, and professional, scientific, and technical work under the Planning and Reviewing Committee. Chairman: Oscar B. Ryder.

TAXATION. While no new revenue law was passed by Congress during 1946, tax policy was a major issue in the November Congressional elections. Republican candidates promised an "across-the-board" reduction of 10–20 percent in personal income tax rates, if elected, and substantial reductions in Federal expenditures to make this possible without producing a budget deficit. The Administration, on the other hand, maintained that tax reductions were not desirable in a period when inflation was threatened, particularly because expenditures could not be reduced further, and opposed the Republican proposal.

On the last day of the year, the President proclaimed the cessation of hostilities. By this action, the higher wartime excise taxes on alcoholic beverages, furs, luggage, and other luxury items which were scheduled to terminate six months after the close of hostilities would expire on July 1, 1947. The President's budget message, however, proposed continuation of wartime rates in order to provide a surplus of receipts for debt retirement in the 1947–8 fiscal year. The President estimated that continuation of the wartime excise rates would increase tax collections in the 1948 fiscal year by $1,130,000,000.

The President's budget message also proposed an increase in postal rates sufficient to wipe out the postal deficit. He suggested legislation under which the Federal Deposit Insurance Corporation, the Federal Land Banks, and the Federal Home Loan Banks would return $379,000,000 of capital formerly provided by the Treasury to the Government, which would be taken in as receipts for the year by the Treasury.



INTERNAL REVENUE COLLECTIONS

Two contrasting views with regard to Federal tax reduction were apparent in business circles. On the one hand, it was argued that a period of prosperity furnished a good opportunity to reduce the public debt by maintaining tax collections while reducing expenditures. On the other hand, advocates of tax reductions argued that lower income-tax rates would provide a powerful incentive to increase incomes, so that they would actually raise tax receipts by the government.

The President's tax policy proposals were summarized in his budget message as follows:

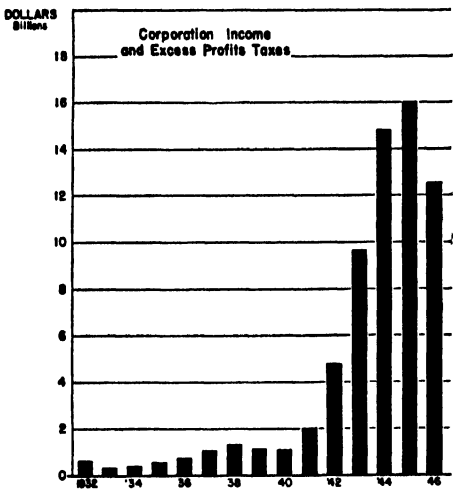
"As previously indicated, I cannot recommend tax reduction The responsibilities of the Federal Government cannot be fully met in the fiscal year 1948 at a lower cost than here indicated. Even if the cost were less it would be desirable in our present economic situation to maintain revenues in order to make a start toward the repayment of the national debt At the present time, in my judgment, high taxes contribute to the welfare and security of the country

"Under the wartime tax system, millions of taxpayers with small incomes are called upon to pay high taxes. When the time comes for taxes to be reduced, these taxpayers will have a high priority among the claimants for tax relief

"I have recommended that the war excise-tax rates to expire July 1, 1947 be continued. When the time comes for excise-tax revision, the Congress should review the entire group of excise taxes rather than concentrate attention on those that were imposed or increased during the war.

"Our long-run tax program must be designed to maintain purchasing power and provide incentives for a high level of production."

Corporation Taxes. Congressional leaders favoring an immediate reduction in personal income taxes favored postponement of changes in corporation levies until 1948. The Treasury issued in December a comprehensive study of the question of eliminating or reducing double taxation of corporate income used to pay dividends, evidently for the purpose of heading off efforts to legislate on this question.



INTERNAL REVENUE COLLECTIONS

Double taxation arises when, after a corporation has paid an income tax upon its profits, part of the balance is distributed as dividends to stockholders. Recipients of these dividends then pay a personal income tax, the second levy imposed upon the same income.

The Treasury study considered four proposals for ending such double taxation. These are:

1. Elimination of the corporate income tax, to be offset by higher personal income and undistributed profits taxes.

2. Taxation of corporate profits at personal income-tax rates, whether these profits are distributed or not. This could be done either by (a) taxing corporations as partnerships, so that each stockholder would include in his taxable income his pro rata share of corporate profits, or (b) by collecting a tax from the corporation equivalent to what shareholders would pay if all profits were distributed.

3. Allowing corporations to deduct from taxable income the amount of dividends paid out, so that such earnings would be taxed only in the hands of the stockholder.

4. Giving stockholders a credit for taxes already paid by the corporation for dividends they receive through (a) a tax credit on personal income-tax returns; (b) a dividends-received credit; and (c) exclusion of dividends received from individual taxable income.

Finding objections to all of these proposals, the Treasury pointed out further that they would reduce tax collections under normal economic conditions by an amount varying from $800,000,000 to $1,400,000,000 annually, depending upon the proposal adopted. The fear was expressed also that a change in the method of taxing dividends giving windfalls to existing stockholders could touch off a speculative boom in the stock market. Of all the alternatives, taxing corporations like partnerships was considered least objectionable from the Treasury's viewpoint.

JULES I. BOGEN.

TAX COURT OF THE UNITED STATES. An independent agency of the U.S. Government (formerly the U.S. Board of Tax Appeals, created by the Revenue Act of 1924). Its function is to determine, after hearing, whether there is a deficiency or an overpayment, where deficiencies have been determined by the Commissioner of Internal Revenue, in income, profits, estate, gift, and unjust enrichment taxes, and personal holding company surtaxes; to adjudicate controversies relating to excess profits on Navy contracts and Army aircraft contracts; and to review the action of the Commissioner in deficiency and refund cases founded on claims of abnormalities under excess profits and processing tax statutes. Presiding Judge: Bolon B. Turner.

TEA. For tea, as for so many other basic commodities, 1946 was a year of uncertainty complicated by wartime problems. The world supply situation continued tight and by the end of the year it was apparent that many months must elapse before world tea production and trade could return to prewar "normalcy."

The war cut the allied nations off from all the principal tea-producing areas except India and Ceylon, fortunately the two largest producers. These two countries intensified and expanded their production and their increased output was allocated among the allied nations. The United States' share was bought up by the United States government through the United States Commercial Company which imported the tea and sold it to the American trade.

Because of this government-trade arrangement equitable distribution of available tea supplies was achieved. Although supplies at one time were as

UNITED STATES TEA IMPORTS BY KINDS FROM EXPORTING COUNTRIES

(Showing Comparison Between Prewar and Postwar Quantities)
(Tea Passed by the Examiners for Admission)
(In Thousands of Pounds)
(Years Ending June 30th)

	1938–9	*1945–6*	*1946–7**
Black Teas			
India	17,462	52,271	17,676
Ceylon	23,566	42,063	19,788
Java and Sumatra	22,715	.	28
Blended	857	22	5
Congou	1,721	30	205
Japan	856	..	...
Formosa	1,648	..	8
Africa	176	.	..
Other	43	.	4
Total Black	69,044	94,394	37,714
Green Teas			
India	.....	.....	.....
Ceylon	.. ..	.. ..	.. ..
Japan	8,851	.....	4,357
Japan Dust	2,231	.....	.....
Japan Gunpowder	23	..	.....
Ping Suey	1,885	23	61
Country Green	104	7	546
Other	6	34*	. ...
Total Green	13,100	64	4,964
Oolong Teas:			
Formosa	5,065	..	... .
Canton	607	10	29
Other	101	.. ..	50
Total Oolong	5,773	10	79
Mixed & Various:	67	.....	16
GRAND TOTAL	87,984	94,468	42,773

* Six months ending December 31, 1946.

low as 50 percent of normal (normal prewar consumption was about 90 million pounds a year) tea was never rationed in the United States.

On March 31, 1946—less than a year after the Japanese surrender—the United States government turned its war born tea importing business back to the trade. An import licensing system was substituted as a means of insuring equitable distribution of the United States allocation among the various importing firms. About the same time the Combined Food Board set the United States allocation of India and Ceylon tea for the tea year, April 1, 1946, to April 1, 1947, at about 82 million pounds, only slightly below normal. In addition, a few million pounds of China and Japan teas were imported. Thus the United States was assured of more or less adequate, though by no means copious, supplies of tea in a tight world market during the period of the contract.

Meantime, price controls were maintained at prewar levels until October 23, 1946, when the OPA dropped controls on all except a few very tight commodities. Thus the United States got through the war years and the first postwar year with comparatively plentiful tea available at reasonably low prices.

World Tea Picture. The world tea picture was not so bright. In India and Ceylon labor shortages and the general political unrest created grave problems. The tea plantations of Java and Sumatra, together the third leading prewar exporting region, were greatly damaged by the Japanese during the war and virtually no tea was coming from them. China and Japan, the green tea producers, were able to export only very small quantities and oolong tea from Formosa remained a prewar memory as far as the Western World was concerned. These and other developments were cheerless news to hundreds of millions of people, for tea is the world's most popular beverage. More of it is consumed than any other beverage except water itself.

The latest estimated figures for world consumption of tea were compiled by the Tea Bureau, Inc. in 1939, shortly before the outbreak of World War II. According to these figures a total of 1,997,000,000 pounds of tea was consumed throughout the world in 1939 That is enough tea, on the conservative basis of 160 cups to the pound, to brew more than 300 billion cups.

The United States is second in consumption among the importing nations and fourth among all the nations of the world. According to Tea Bureau figures China led in the consumption of tea with about 800 million pounds in 1939. She was followed by the United Kingdom, 469 million, India, 111 million; United States, 97 million; Japan, 75 million; Russia, 63 million; Australia, 51 million; Canada, 43 million; Holland, 29 million; Eire, 23 million; and Netherlands East Indies, 21 million.

The approximately 100 million pounds normally consumed in the United States each year, enough to make about 20 billion cups, was supplied before the war by the following countries in the indicated amounts: India and Ceylon, 43 million pounds; Java and Sumatra, 37 million pounds; Japan and Formosa, 14 million pounds; and China and Africa, 6 million pounds.

United States Consumption Trend. Probably the most interesting tea consumption trend in the United States has been the swing to black tea since the end of World War I. When the United States entered that war, the country as a whole preferred green tea. In 1915 about 30 percent of the tea drunk here was black tea. By 1920 black tea consumption had risen to about half of the total. From then on the black tea imports gained steadily while greens and oolongs fell off. By 1941 about 90 percent of tea drunk in this country was black tea.

During the war years the United States imported black tea exclusively, the greens and oolongs being largely in Japanese hands. It cannot yet be said whether the greens and oolongs will, in the postwar period, regain even their limited prewar popularity.

Surveys indicate there are three basic reasons for the American preference for black tea. Americans have always preferred "body" to their drinks and the rich color of black tea lives up to the eye appeal requirements of consumers in this country. It is the most vigorous and masculine of the three kinds of tea. A third reason is that black tea makes the most pleasing iced tea.

American Standards Maintained. One thing certain was that the quality of tea imported for American consumers would continue to be of first-rate quality. By law, no tea is admitted to this country until it has been tested by United States tea examiners to insure its being up to standards set jointly by the government and the trade These standards, the highest in the world, have been maintained at prewar levels and they guarantee that all tea for sale in the United States is good tea.

WILLIAM D. CARTER.

TEMPORARY CONTROLS, Office of. On December 12, 1946, the President issued Executive Order 9809 providing for the disposition of certain of the war agencies and the assumption of their remaining functions and liquidation by an Office of Temporary Controls. The order consolidated the Office of War Mobilization and Reconversion, the Office of Economic Stabilization, the Office of Price Administration, and the Civilian Production Administration. The principal functions of the new agency were the sugar rationing and rent control programs of the OPA and the remaining powers of the Civilian Production Administration (q.v.).

Major General Philip B. Fleming was appointed to head the new agency in addition to his duties as Federal Works Administrator. At the same time, the President announced the appointment of John R. Steelman, who had headed the OWMR, as Assistant to the President to aid in coordinating programs and policies of federal agencies.

JOHN D. SMALL.

TENNESSEE VALLEY AUTHORITY (TVA). A corporation created by Congress in 1933 to develop the Tennessee River System in the interest of navigation, control of floods, and the generation and disposition of hydroelectric power. It conducts a program of water control and conservation, including fertilizer research. The TVA is constructing a system of dams (q.v.) which will provide a nine-foot navigable channel from the mouth of the river near Paducah, Ky., to Knoxville, Tenn., 648 river miles. The Tennessee basin includes parts of seven States, an area of 41,000 square miles with a population of about 3,000,000. See WATERWAYS.

The Corporation's power-producing system has an installed capacity of 2,500,000 kilowatts.

As of December 31, 1945, the corporation had contracts for sale of power at wholesale with 92 municipalities, 3 counties, 46 cooperatives, and 3 privately owned utility companies (in addition to contracts for purchase or interchange of power with 19 private companies). These agencies (the private companies excluded) distribute power to more than 600,000 ultimate consumers under retail rates agreed upon with the Authority. The cor-

poration had contracts for bulk sales of firm and secondary power with 10 large industrial concerns. It is also providing power to 13 projects, plants, and bases of Federal agencies.

During the fiscal year 1945 the Authority's power sales exceeded 10,000,000,000 kw-hr and its gross revenues from the sale of power were nearly $39,000,000. Chairman: Gordon R. Clapp.

TENNIS. The revival of the Davis Cup and women's Wightman Cup competitions, along with the Wimbledon and French championships gave tennis its greatest year since 1939. Late in December the game produced one of 1946's real international sports classics when a brilliant band of racquet-wielders representing the United States invaded Australia and brought back the Davis Cup, symbolic of world net supremacy. The Aussies had held the famous trophy since winning it from this country in 1939, after which competition was suspended for the duration of the war.

America's stars, chosen by non-playing captain Walter Pate, furnished one of the major sports surprises of the year when they swept over the cup defenders, 5 to 0, after crushing all opposition in the qualifying rounds and turning back Sweden in the inter-zone final for the right to challenge Australia. Ted Schroeder of Glendale, California, national champion in 1942, but unranked the past season because of insufficient tournament play, proved the big star in the cup competition which required three days and was witnessed by 41,500 spectators.

The victors got away winging in the opening singles matches when Schroeder defeated Jack Bromwich, Australia's big gun, in a torrid battle, 3–6, 6–1, 6–2, 0–6, 6–3, while Jack Kramer, United States champion from Montebello, California, took the measure of the sensational Dinny Pails, 8–6, 6–2, 9–7. Then Schroeder teamed with Kramer the following day to clinch the cup, the invaders routing Bromwich and Adrian Quist, 6–2, 7–5, 6–4, in the decisive doubles match.

With the famous prize already won, the Americans, hailed by the host nation as "the most unforgettable athletes ever to visit Australia," showed no let-up in the concluding matches. When Kramer subdued Bromwich, 8–6, 6–4, 6–4 and Gardnar Mulloy of Miami, Florida, beat Pails, 6–3, 6–4, 6–4, the victors had completed the first shut-out in a Davis Cup challenge round since Great Britain turned the trick against the United States in 1935.

American women stars were equally successful in their invasion of England for a revival of the international series for the Wightman Cup, routing Britain's lassies without so much as the loss of a set in five singles and two doubles contests. Misses Pauline Betz of Los Angeles; Miss Margaret Osborne, San Francisco; Miss Louise Brough, Beverly Hills; Mrs. Patricia Canning Todd, La Jolla, California, and Miss Doris Hart of Miami, comprised the winning team.

Mrs. Hazel H. Wightman guided the play of the Americans, who gained the first shut-out since the series was inaugurated in 1923. Their triumph without the loss of a set marked the first such one-sided victory in the cup play and enabled the United States to keep the prized trophy, which it has held since 1931.

Following their cup conquest the American women continued their brilliant play to help capture four titles for the United States in the revived Wimbledon championships. The feminine singles title went to Miss Betz when she defeated Miss Brough, 6–2, 6–4, before 18,000 fans. But Miss Brough had ample revenge before the day was over, pairing with Miss Osborne to win the doubles crown from Miss Betz and Miss Hart, 6–3, 2–6, 6–3 and teaming with Tom Brown, Jr., of San Francisco to defeat Geoff Brown of Australia and Mrs. Dorothy Bundy Cheney of Santa Monica, California, 6–4, 6–4, in the mixed doubles final.

Tom Brown and Kramer combined their talents to give the United States its fourth Wimbledon prize, conquering Geoff Brown and Pails in the men's doubles, 6–4, 6–4, 6–2. Yvon Petra of France carried off men's singles laurels, only title to elude the Americans, when he turned back Geoff Brown, 6–2, 6–4, 7–9, 5–7, 6–4, in an epic two-hour duel that matched some of the greatest battles ever witnessed on Wimbledon's famous center court.

Miss Brough added to her conquests abroad by defeating Miss Hart for singles honors in the Irish open tourney and then pairing with the loser to take the doubles final. Miss Osborne won the French crown with a victory over Miss Betz, 1–6, 8–6, 7–5. Marcel Bernard retained the French men's title by halting Jaroslav Drobny of Czechoslovakia 3–6, 2–6, 6–1, 6–4, 6–3, July 28. Misses Brough and Osborne also won tandem laurels in the Irish and Northern British tourneys.

Having tuned their weapons abroad, the American aces returned home to help make the United States championship tournament one of the best ever held at the West Side Stadium in Forest Hills. Climax of the competition—which broke all records for receipts and attendance—came in the men's final when Kramer, the former Coast Guard lieutenant, turned back Tom Brown, conqueror of the defending champion, Frankie Parker, by 9–7, 6–3, 6–0, before 14,000 spectators.

Miss Betz won the women's crown for the fourth time when she halted Miss Hart, 11–9, 6–3. Mrs. Sarah Palfrey Cooke, who had dethroned Pauline in 1945, did not compete the past year. The men's doubles title was captured by Mulloy and William Talbert of Wilmington, Delaware, while Misses Osborne and Brough retained the women's honors. Miss Osborne also paired with Talbert for the mixed championship.

Professional tennis continued along its way, with bigger and better competitions throughout the country. Don Budge of Los Angeles retained recognition as world clay court king while Bobby Riggs of Los Angeles became the national ruler. Riggs gained his title by halting Budge, 6–3, 6–1, 6–1, in the nineteenth annual pro tournament at Forest Hills, requiring only 56 minutes to halt his Coast rival.

THOMAS V. HANEY.

TERRITORIES AND ISLAND POSSESSIONS, Division of. The Division of the U.S. Department of the Interior which administers the territories and possessions of the United States. See the separate article on each. Director: Edwin G. Arnold.

TEXTILE FOUNDATION, Inc. A Foundation created in 1930 within the U.S. Department of Commerce to conduct research for the benefit and development of the textile industry and its allied branches.

Sixteen research associates are working in the laboratories of the Textile Foundation at the National Bureau of Standards on problems related to the war effort. These projects include investigations related to clothing for aviators; clothing for jungle troops; water repellency treatments for military fabrics; deterioration of military fabrics through exposure to the elements as well as to various types of chemicals; influence of different types of fibers

on the warmth and serviceability of blankets, underwear, and clothing; and shrink-proofing treatments for wool socks, underwear, etc. Chairman: Franklin W. Hobbs.

TEXTILES. For the textile industry, the year 1946 was one of rapid conversion from wartime to peacetime activities. Although the output of civilian goods during most of the year was restricted by price controls, over-all textile production in 1946 was well above that for 1939—the last "normal" prewar year. Production of cotton broad woven fabrics, for example, was approximately 9 billion yards in 1946, as compared with 8¼ billion yards in 1939 and 11 billion yards in 1942—the peak wartime year. At the end of the year it appeared that by mid-1947 output of textiles might equal the volume of orders, with production of some types of fabrics—notably woolens and worsteds—exceeding the demand even earlier. Among several important economic trends which were apparent in the textile industry, that toward the vertical integration of manufacturing, finishing, and converting operations is expected to be the most far-reaching in its effects. Most important among the various technical developments was the emphasis placed on the development of textiles to meet specific end-uses.

During the war years a high percentage of textile production was for military purposes. Military procurement of cotton fabrics for instance, averaged between 2½ to 3½ billion yards annually, or 25 to 35% of total output. In 1946 military requirements dropped to about 100 million yards. Termination of government contracts, which began in August, 1945, continued during the first part of 1946 in what, for the most part, was an orderly and satisfactory manner.

On November 9, 1946 price controls on textiles were lifted; and further decontrols appeared imminent, such as Civilian Production Administration regulations on set-asides of cotton, rayon, and other textiles designed to stimulate the production of low-cost garments and other scarce commodities.

TABLE I—INDEX OF TEXTILE ACTIVITY

Year	*Index*	*Year*	*Index*
1939	100	1943	142
1940	108	1944	134
1941	142	1945	130
1942	150	1946	138*

* Estimated.

Textile mill activity, based on total fiber consumption was approximately 38% higher in 1946 than in 1939, and about 12% lower than 1942, the peak war year (See Table I. Index of Textile Activity). Production of various types of textiles in 1946 as compared with 1939 were as follows: cotton broad woven fabrics 9% higher; woolen and worsted fabrics 34% higher, representing a new peak of approximately 645 million square yards, rayon yarn and staple fiber 103% higher; rayon broad woven fabrics 24% higher; women's hosiery 25% lower. The high rate of textile production was achieved despite the fact that active textile machinery and textile machinery in place were somewhat lower than in 1939. For example, the number of active cotton spindles in 1946 averaged approximately 22,000,000 as compared with 23,700,000 in 1939, a decline of 7%; woolen and worsted looms in place averaged approximately 40,000 as compared with 44,700 in 1939, a decline of 15%.

The average number of wage earners in the textile industry during 1946 was approximately 1,180,000, or 7% over the number employed in 1939. Average hourly earnings were up about 79% to 89.10 cents; average weekly earnings were up a little over 100% to $34.28 (See Table III. Indices of Textile Employment). Output per man-hour showed virtually no change from 1939.

TABLE II—PRODUCTION OF COTTON AND WOOL GOODS

Year	*Cotton Broad Woven Goods (Linear Yards)*	*Woolen and Worsted Fabrics (Square Yards)*
1939	8,287,000,000	482,000,000
1940	(not given)	444,000,000
1941	10,432,000,000	650,000,000
1942	11,108,000,000	685,000,000
1943	10,573,000,000	661,000,000
1944	9,547,000,000	658,000,000
1945	8,724,000,000	608,000,000
1946	9,019,000,000*	645,000,000*

* Estimated.

TABLE III—INDICES OF TEXTILE MILL EMPLOYMENT

Year	*Employees*	*Payrolls*
1939	100	100
1940	98	101
1941	112	136
1942	112	163
1943	107	177
1944	99	175
1945	94	174
1946	107	179*

* Estimated.

Trends in the wholesale prices for textiles are indicated in Table IV. Whereas there has been a more or less steady advance during the period 1939–1946 in wholesale prices for textiles, other than rayon yarn and staple, there was a marked rise in 1946 in the wholesale prices for cotton fabrics. By July, 1946, higher raw-material, labor, and other production costs had forced the wholesale prices of cotton fabrics to over twice prewar prices.

TABLE IV—INDICES OF WHOLESALE PRICES FOR TEXTILES

(Adapted from *Textile Organon*)

Year	*All Textiles*	*Cotton Woven Fabrics*	*Woolens & Worsteds*	*Hosiery & Underwear*	*Rayon Yarn & Staple Fiber*
1939	100	100	100	100	100
1940	104	94	106	101	96
1941	120	123	119	102	97
1942	136	148	135	113	98
1943	137	148	138	114	98
1944	139	152	138	114	98
1945	141	159	138	115	98
1946	161	182*	138*	124*	98*

* Estimated.

It became apparent, despite the deficit of civilian supplies of cotton textiles built up during the war years, that there was little possibility this high price level could be sustained, and a downward readjustment of prices probably would be necessary in the not too distant future. This belief was further strengthened by a knowledge of the fact that textile inventories were rising (See Table V. Index of Textile Inventories). What may be the first definite sign of a drastic reduction in prices for cotton textiles occurred in October, 1946, when the price of raw cotton which had soared to a high of

TABLE V—INDEX OF TEXTILE INVENTORIES

Year	*Inventories*	*Year*	*Inventories*
1939	100	1943	205
1940	106	1944	192
1941	160	1945	197
1942	199	1946	216*

* Estimated

39.28 cents a pound began a series of sharp declines to 27.46 cents a pound on November 7.

Due chiefly to mergers, approximately 25% of all textile manufacturing equipment changed hands during the period 1944–1946. Because of this trend toward integration, which was particularly marked in 1946, there is a growing belief that the textile industry is entering an era of large mills groups, with a comparatively small number of companies dominating the field. Integration has been both horizontal, which is the merging of plants at the same level of production, and vertical, which is the merging of plants at different levels of production, such as spinning, weaving, and finishing. In several instances vertical integration has been carried to the stage which includes the manufacturer of garments and/or other types of consumer goods. It is too early to foresee all the effects of mill mergers. It appears certain, however, that there will be radical changes in textile distribution methods and that a shrinking grey-goods market will result from vertical integration in the cotton textile industry.

During the war a vast amount of work was carried out on the development of textiles to meet specific military requirements. Since the end of the war there has been a growing recognition of the importance of developing textiles to meet the requirements for specific consumer and industrial end uses. It has been found that in many instances the production of these "engineered" or "end-use" fabrics entails the development of new types of yarns and new cloth constructions.

In this endeavor to fit fabrics to their ultimate end-use, increasing attention is being paid to high-tenacity rayon, nylon, and other synthetics—either singly, in combinations with one another, or in conjunction with natural fibers. The possibilities of knitted fabrics versus woven fabrics is being explored. Wartime experience in rendering textiles water-repellent, wind-repellent, flameproof, shrink-resistant, etc., was translated into the production of durable, functional finishes on fabrics for civilian use.

Coupled with the use of these durable, functional finishes, has been the more extensive utilization of coloring materials, such as vat colors and pigment colors, which provide dyed and printed fabrics with excellent fastness to light, laundering, drycleaning, and other destructive agencies.

One development which has had an impact on the textile industry is the increase in production of plastic films. Plastic films found extensive application during the war for a variety of military purposes. With the end of the war, they began to find wide use, in place of textiles for shower curtains, window curtains, table cloths, rain coats, and other purposes. Recently developed methods for producing printed designs on plastic films have further enhanced the decorative properties of the films. Whereas the plastic films compete directly with woven fabrics for some end uses, the printing of these films has created new opportunities for the textile printers.

During the late 1930's the textile industry began to expand its facilities for fundamental and applied research. The year 1946 has witnessed the rebuilding and strengthening of research staffs which were depleted during the war and the further expansion of research facilities. Research projects which were temporarily suspended have been resumed and other investigations have been started.

Another trend which should be noted is that toward the increased production and utilization of synthetic fibers. In 1939 total yarn consumption was approximately 4 billion pounds, of which less than 500 million pounds, or 12½%, was synthetics. Annual postwar yarn consumption is expected to total approximately 6 billion pounds, of which 1½ billion pounds, or 20%, will be rayon, nylon, and other synthetics. Of the total United States production of 690 million pounds of continuous-filament rayon, viscose process yarn accounted for approximately 69%; acetate rayon, 29%; cuprammonium rayon, 2%. Of the total production of 180 million pounds of rayon staple fiber, approximately 75% was the viscose type; and 25% the acetate type. During the war years production of viscose process continuous-filament rayon increased 66%, due mainly to the demand for tire-cord of high-tenacity viscose rayon, and the priorities given for building plants for producing this type of yarn. The fact that 50% of all viscose rayon yarn produced in 1946 was intended for tire-cords indicates the importance of this end use for high-tenacity rayon. Other present or potential uses for high-tenacity rayon include hosiery, sports clothes, shirtings, draperies, braids, cords, sewing thread, sail cloth, filter fabrics, and belting. The chief use for regular strength rayon is in the manufacture of woven and knitted apparel fabrics, including hosiery.

From the volume standpoint, nylon is the most important of the synthetic fibers other than rayon, and output will be further increased upon the completion of new plants projected in 1946. Before the war the principal use for nylon was for the manufacture of women's hosiery. During the war use of nylon was restricted to military purposes. With nylon again made available for civilian purposes, steps have been taken to broaden its fields of application to include a wide variety of apparel, household, and industrial fabrics both woven and knitted, as well as braids, cords, sewing thread, etc.

Among other synthetic fibers which have established textile applications are Vinyon, Saran, Velon, Fiberglas, and Aralac. In addition, several newer synthetics are being produced on a small commercial or semi-commercial scale or are in the development stage.

It is becoming apparent that many of these synthetic fibers will compete with one another and with natural fibers in certain fields and also that they will open up new applications for textiles.

WINN W. CHASE.

THEATER. The truism that the theater reflects the life and times of an era was certainly applicable to the theater during 1946. Not so much to the theater as an art, but to the theater as a business.

The same unrest, the same frenzied attempts to make profits in the face of rising costs, the same fears to take chances on anything but the most tried-and-found-true formulas were in evidence within the realm of the theater as they were in all phases of American life.

The instinct to be progressive or experimental has never been a strong one in New York's commercial theater. As the year progressed and uncertainty engulfed the nation and the world, many theatrical producers, unable to find "sure-fire hits" among the new manuscripts which came to their desks, turned to the libraries instead of the agents for their plays, and the revival trend which was started during the war years continued during this, the first year after the war.

Revivals. In all, twenty-two revivals were presented, including the five brought over from England by the Old Vic Company. Shakespeare was represented more times than any other playwright taken from the library shelves. In January the Theatre Guild presented his seldom produced *The*

Winter's Tale, the Old Vic Company brought over from London *Henry IV, Parts I and II*, in May, and during the early part of October the newly organized American Repertory Theatre did as its initial production *Henry VIII*.

Among the other classics to be presented during the year were John Webster's *The Duchess of Malfi*, with Elisabeth Bergner; a Bobby Clark version of Molière's *The Would-Be Gentleman*, starring Mr. Clark; the Old Vic's other contributions, Chekhov's *Uncle Vanya*, W. B. Yeats' translation of Sophocles' *Oedipus*, and Richard Brinsley Sheridan's *The Critic;* George Bernard Shaw's *Candida*, which Katharine Cornell revived to be presented alternately with her modern version of *Antigone*, and his *Androcles and the Lion* revived by the American Repertory Theatre.

Also offered were J. M. Synge's *The Playboy of the Western World* by the Theatre Incorporated, with Burgess Meredith as star, the American Repertory Theatre's *John Gabriel Borkman*, by Henrik Ibsen, James M. Barrie's *What Every Woman Knows*, and Rostand's *Cyrano de Bergerac*, Oscar Wilde's *Lady Windemere's Fan*, and a Negro production of *Lysistrata*.

The modern revivals included everything from an extremely handsome and lavish production of the Jerome Kern–Oscar Hammerstein 2d musical, *Show Boat* to the rowdy newspaper melodrama of 1928, *The Front Page*, by Charles MacArthur and Ben Hecht.

Not all these revivals made money for their producers. Elisabeth Bergner could not make a go of it with *The Duchess of Malfi*, even with Canada Lee putting on white face to be the first Negro actor in the American theater to play a white man. He enacted the role of the villainous Daniel De Bosola.

Bobby Clark had to close *The Would-Be Gentleman* after seventy-seven performances, while the youthful producers, Hunt Stromberg, Jr. and Thomas Spengler brought the run of *The Front Page* to an end after two months.

Though *Show Boat* was considered a success, due to the tremendous operating expenses and the high cost of its production, it will end its run of a year on January 5, 1947, with a deficit of $130,000.

Repertory. New York has been without a repertory company since 1933, when Eva Le Gallienne closed the Civic Repertory Theatre on Fourteenth Street. This spring the famous Old Vic Company was brought over by the Theatre Incorporated for a limited engagement of six weeks, and a new generation of theater-goers was introduced to the operations of such a company.

In bringing over the troupe from London, the Theatre Incorporated had planned to lose money, but generously offered the Old Vic's managers half of any profit that might be made. The move, the expenses of which were assumed by Theatre Incorporated, was a costly one. The producing organization had $25,000 of its own. Cornelius V. Whitney headed a small group of public-spirited citizens composed of Julius Fleischmann, Joseph Verner Reed, William S. Paley and Alfred G. Vanderbilt who put up $75,000, and the combined sums were used for bringing the company from London by plane, for shipping the scenery, for paying for the dress rehearsals and for covering other numerous expenditures. The Theatre Incorporated agreed to repay the gentlemen from the earnings over and above the production and running expenses, and the committee agreed to share the losses in proportion to the amounts the members contributed if the losses were more than $25,000, but their losses were limited to $75,000. Theatre Incorporated agreed that the organization would assume a deficit up to $25,000.

The total gross receipts for the six-week engagement at the Century Theatre in New York, due to consistent sell-outs and standing room at all performances, were $304,185.50. After all expenditures were paid, and Mr. Whitney and his committeemen had been returned their $75,000, the profit on the engagement was $30,641.67, which had the Theatre Incorporated and the Old Vic Company receiving $15,320.84 each.

The overwhelming success of this famous old repertory company made Broadway pause and wonder. Was it due to the fact that the company was headed by two favorites in America, Laurence Olivier and Ralph Richardson? Could it be that the theater-going public was taken in by the deluge of advance publicity, or does America really want to see the classics revived under the repertory system?

The questions will shortly be answered, for New York again has a repertory company of its own, The American Repertory Theatre, headed by Eva Le Gallienne, Margaret Webster and Cheryl Crawford. They have raised $300,000 and have leased the International Theatre on Columbus Circle, for two years. The ART's season, which began in November, calls for six plays. By the end of 1946 *Henry VIII*, Sir James Barrie's *What Every Woman Knows*, Henrik Ibsen's *John Gabriel Borkman* and Shaw's *Androcles and the Lion* had been presented. Before the first season is completed they will have added to their repertoire Sheridan's *School for Scandal* and a new play.

Miss Crawford is the Managing Director of the company and Miss Le Gallienne and Miss Webster divide the directing chores and act. Included in the company are Victor Jory, Walter Hampden, June Duprez, Ernest Truex, Richard Waring, and Philip Bourneuf. The scenery and costumes are designed by David Ffolkes and Paul Morrison. Lehman Engel is in charge of the music, and Felicia Sorel stages whatever dances have to be done.

Everyone in the company is under contract for two years and is paid on the basis of a forty-week period. After a season in New York the American Repertory Theatre goes on the road, playing all the major cities in America.

Theater Shortage. The housing for plays and musicals in New York became as acute as the housing for people. Many factors enter into the situation to make it a baffling one, and like the civilian housing shortage, everybody talked about it, but nothing was done about it.

The only constructive thing that could be done was to build some more theaters, but no one was doing that. Instead, theater owners were renting their theaters to radio stations and motion picture companies, who offered lucrative rental fees, leaving the poor play producers with plays to produce, but no place to produce them.

Add to the headaches the continuation of the "stop clause," that came into being during the war years. The "stop clause," which was in every contract signed by the producers with the theater owners, set a definite sum that a play or musical had to gross. If it ever fell below the amount stated, the show would have to close or seek another house. It always closed, of course, for there were never other houses to seek.

Many times producers, stymied on the road during pre-Broadway tours, would bring plays into New York when unexpected vacancies occurred, knowing that the theaters were already booked by

other plays. They gambled on being able to secure other theaters when moving time came.

The Theatre Guild did that with its production of *The Winter's Tale*. Fortunately the Shakespeare revival had been touring successfully for seventeen weeks and the production costs had been paid back, for when Katharine Cornell was ready to open *Antigone* at the theater, previously booked, in which *The Winter's Tale* was playing, the play had no place to go and was forced to close.

José Ferrer almost had a similar fate with his production of *Cyrano de Bergerac*. He had engaged the Alvin, which had already been leased by the Playwrights' Company for *Joan of Lorraine*, starring Ingrid Bergman, for an opening a month after *Cyrano's* première. Had Mr. Ferrer been forced to close, he would have lost $100,000, but luckily for him, Elisabeth Bergner closed her revival of *The Duchess of Malfi* at the Barrymore in time for the actor-manager to obtain that theater.

Another factor which made the situation difficult was the development of long runs. Producers became more cautious and unless they were fairly certain of meeting criticism and audience approval at once, they would not open their productions. More and more shows closed on their try-out tours, and only those managers who felt they had sure successes on their hands would open in New York A hit, of course, was able to meet its "stop clause" and stayed in its theater. That was fine for the hit and the theater, but was not easing the theater shortage. At one time during the year twenty-three new productions were held out of town awaiting theater vacancies.

Tied in with the theater-shortage was the mounting production cost. One-set shows were costing producers between $50,000 and $60,000, and musicals, which required several sets and extensive costuming, from $100,000 to $300,000. Both the revival of *Show Boat* and the production of the Ethel Merman vehicle, *Annie Get Your Gun*, were in the $300,000 class. It is reported that *Annie* will have to play for a year before production costs are earned and the musical comedy can begin making a profit.

No longer can a manager bring in a show, nurse it along with the hope that it will eventually find its audience. The theater shortage, the "stop clause," and the high production costs have seen to that.

Producers Rebel. On Wednesday night, February 27, 1946, the critics went to the opening of Maxwell Anderson's *Truckline Cafe* at the Belasco Theatre, little thinking that the reviews they wrote that night to appear in the press the next day would cause a furor. They had not liked the play and had said so. Harold Clurman and Elia Kazan, coproducers of the play with the Playwrights' Company, of which Mr. Anderson is a member, did not like what the critics had written and replied boldly and bitterly in large advertisements, which appeared in several of the daily newspapers. The advertisements were large ones, giving plenty of space for the two men to accuse many of the gentlemen of the press of being incapable of doing the job assigned them and to claim that had the reviewers not been so vehement in their disapproval, the play might have found its audience. As it was, they were of the opinion that the drama critics not only had driven the wolf to the Belasco's stage door, they had seen to it that he was firmly intrenched inside of it, and the play was being forced to close without a proper hearing.

As the critical fraternity was recovering from this verbal double-punch, playwright Anderson picked up the cry in another advertisement, published two days later, saying among other things that the writers of drama criticism were "the Jukes of Journalism."

Tempers were high, talk was strong, and interest was great in the conflict. Many people in the theater, burdened down by the many problems confronting the institution today, felt that the complaint was not without some justification. They only wished that the play had been worthy of the stir it had created.

Later, during the middle of May, John Clein opened at the Booth Theatre with *Swan Song*, which was authored by Ben Hecht and Charles MacArthur and reportedly financed by them to a great extent. It, too, received unanimous disapproval from the critics. The Messrs. Hecht and MacArthur were angered by the comments, but, instead of making their rebuttal in the form of paid advertising, they wrote a curtain speech berating the reviewers and asking the audiences, if they liked the show, to tell their friends.

The last chastising received by the drama critics was administered by the producer, director, adaptor and main actor of the last production of the 1945–46 theatrical season—Orson Welles. The production concerned was a musical version of Jules Verne's *Around the World in Eighty Days*, which arrived at the Adelphi Theatre on the 31st day of May. It was a gigantic, expensive affair, with music by Cole Porter, entailing two acts and thirty-four scenes and the use of fifty-six stage hands. John Chapman, of the New York *Daily News*, was the only daily reviewer to write a favorable notice, and Mr. Welles expressed his indignation vocally over the radio and in public whenever possible. Though his scorn rallied a great number of his fans to the box-office, not enough came to offset the huge operating expense of the extravaganza, and the show was forced to close at the end of seventy-four performances.

The last act of the critics to bring disfavor from several corners of the Broadway area was the inability of the Drama Critics' Circle to agree on the best play of the season so that it could make its annual award. The Pulitzer Prize Committee made its yearly play award to the Howard Lindsay–Russel Crouse Comedy, *State of the Union*, starring Ralph Bellamy and Ruth Hussey, but no award came from the Drama Critics' Circle.

Recently the Drama Critics' Circle altered its by-laws so that a prize must be granted at the end of each season, and the beginnings of peace are in sight. At least, within the Circle's own ranks, for John Chapman, George Jean Nathan and Robert Garland, who withdrew from the organization because of disagreement with its policy, have returned to the fold.

O'Neill Returns. No theatrical event of the year was more anticipated nor more eagerly awaited than the Theatre Guild's production of Eugene O'Neill's *The Iceman Cometh*. It had been twelve years since America's foremost playwright had been represented on Broadway. Utmost secrecy had surrounded the production. Practically no manuscripts had been in circulation previous to the readings for parts or rehearsals. Rehearsals had been held behind closed doors and few interviews had been granted by the playwright or by anyone connected with the play before its opening. Yet, word had crept out, enough to tease theater-goers, and the Theatre Guild had advertised the play far enough in advance of the première to have long queues at the box-office and a good advance sale before the curtain rose on a drama that was to have four acts and was to play four and a quarter hours.

The Theatre Guild tried to break the running time by bringing up the curtain at 5:30 p.m., play the first act and then grant an hour and fifteen minutes dinner intermission before resuming the other three acts. The plan was not too successful because of crowded restaurant conditions, and so it was abandoned in favor of a 7:30 curtain and regular ten minute intermission between the acts.

No matter what the arrangements were, nor how great the respect of the theater-goers for the dramatist or the drama, four and a quarter hours made fairly long sitting in the theater.

Whatever else Mr. O'Neill was saying in *The Iceman Cometh*, it was generally agreed that his play preached the doctrine that man cannot live without illusions.

To illustrate his theme, he assembled in a Bowery type bar an assortment of characters that ranged from prostitutes to a disillusioned anarchist, who were all living under the illusion that they were going to stop drinking in the near future and resume the respectable stations in life they once held.

Into the saloon comes Hickey for his anticipated annual party. At this party he generally got as drunk as the rest of them, and the pleasant aspects of the party were that the drinks were on him and that the party only stopped when there was nothing more to drink.

When this character appears, however, the habitués of the bar find him a changed man. He has faced life and has found peace. He urges them to do the same. He berates them into sobering up, and makes them attempt to do the things they are always talking about doing. No happiness comes out of it for them. Their peace comes only when they are in their cups, living with their dreams.

The year was 1912, so that Robert Edmond Jones was able to capture a good deal of atmosphere in his sets and costumes. Eddie Dowling directed the piece and a capable cast which included Dudley Digges, James Barton, Carl Benton Reid, Nicholas Joy, and James Cagney's young sister, Jeanne. Mr. Barton met a challenge seldom offered many actors, that of reading one speech for fifteen minutes without stopping.

For awhile it was thought that another O'Neill play would be presented in 1946, *A Moon for the Misbegotten*, but production was postponed from December to an indefinite time in 1947. Secrecy surrounds this play as it did *The Iceman Cometh*. The reason for its postponement has not been given. There is speculation that the playwright's poor health might prevent him from constant attendance at rehearsals, or that he is at work trying to complete his cycle of eleven plays, to be entitled *A Tale of Possessors Self-Dispossessed*, of which seven are finished.

Already completed and awaiting production are the above mentioned *A Moon for the Misbegotten*, *A Touch of the Poet*, and *Long Journey into Night*, which may not be produced until twenty-five years after the playwright's death.

Other Plays. What looked like a trend in social plays was started last year with *Deep Are the Roots*, *Home of the Brave*, and *Strange Fruit*, and was continued into 1946 with Robert Ardrey's *Jeb*, *This, Too, Shall Pass*, *Walk Hard*, and Maxine Wood's *On Whitman Avenue*.

The trend only began, however, for the plays, for the most part, were met with critical disapproval and audience indifference. It died before it really got started. Only *On Whitman Avenue* had the courage to rise above its critical abuse and it achieved a run of 137 performances.

Born Yesterday, a comedy with social overtones became one of the outstanding hits of the year because its playwright, Garson Kanin, saw to it that the play made the audience laugh first and think afterwards. The comedy served to introduce Paul Douglas from radio to the theater, and to bring Judy Holliday to the front as an important comedienne.

The first serious work to be a success was Arthur Hopkins' production of Emmet Lavery's humanized story of the late Justice Holmes, *The Magnificent Yankee*, with Louis Calhern playing Justice Holmes and Dorothy Gish as his wife, Fanny Dixwell Holmes. Katharine Cornell starred in Jean Anouilh's version of *Antigone*, adapted by Lewis Galantiere, which the actress-manager had seen in Paris at the close of the war. The play, which slyly has its say against Fascism, had been presented in France during the occupation. Its success there was not matched here, and it closed after 64 performances.

Ingrid Bergman caused a justifiable stampede at the box-office of the Alvin before and after her opening in November in Maxwell Anderson's dramatic version of the Joan of Arc story, *Joan of Lorraine*, and it looks as though she can play to filled houses as long as she wants to, or her film commitments will permit her.

Another serious work to meet with critical and audience approval was Lillian Hellman's *Another Part of the Forest*, which is the background story of the characters in another Hellman success, *The Little Foxes*.

Jean-Paul Sartre's *No Exit*, successfully produced in London and in Paris before coming to New York, was a four-character play by this leading exponent of the Existentialism philosophy, telling of three people in Hell.

Comedy was represented by Alfred Lunt and Lynn Fontanne, who opened in January in *O Mistress Mine, Love in Idleness* retitled. Mr. and Mrs. Lunt appeared in the Terence Rattigan play in London during the war and toured the GI circuit in Wales, France and Germany before bringing it to New York. In December they played their 301st New York performance in the comedy, thereby achieving their longest run in any play in New York in which they have appeared together.

Ina Claire returned to the theater after an absence of five years to star in George Kelly's comedy, *The Fatal Weakness*. Helen Hayes broke loose from regal roles to play a tipsy spinster librarian sipping "pink ladies" in a Newark bar in Anita Loos' *Happy Birthday*, and Fredric March and his wife, Florence Eldridge, co-starred in Ruth Gordon's sentimental and nostalgic autobiographical comedy, *Years Ago*.

Musically the two outstanding successes were Ethel Merman playing Annie Oakley in *Annie Get Your Gun*, and the ex-GI revue, *Call Me Mister*, both having played to capacity business since their openings. Ray Bolger opened in the spring in a revue, *Three to Make Ready*, which, though not accorded complete critical acclaim, has managed to gross $1,250,000. Compared to the $1,501,500 of *Annie* and the $1,460,413 of *Mister*, it still can consider itself in the upper brackets.

The old favorites manage to remain on the boards with tenacity. *Life With Father* went into its eighth year and ended 1946 by playing its 2,995th performance. It promises to continue at least until June 14, 1947, when it will pass the record held by *Tobacco Road* as Broadway's longest run play. Then it will give its 3,183rd performance.

Oklahoma!, since its opening in March, 1943

has played 1,590 times, having grossed $6,201,114 in New York and $5,742,756 by the National Company now on tour. The other Theatre Guild musical success, *Carousel*, has taken into the box-office, since its première at the Majestic in April, 1945, $4,388,212.

The Voice of the Turtle had its third birthday and *Harvey*, its second and both comedies are still playing to capacity houses. *The Voice*, is represented on the road by two touring companies and *Harvey* has its counterpart in Chicago headed by Joe E. Brown.

The summer, being the first without the war, found approximately 102 summer theaters open. There were too many of them for all the companies to make money, but most of them managed to remain running until the end of the season on Labor Day. Only four plays, which had summer theater productions, were presented in New York before the end of the year. John Golden brought *Made in Heaven!* into Henry Miller's Theatre after it had been tried out at the Westport Country Theatre, Westport, Conn., and Theron Bamberger and Richard Skinner presented Harry Segall's *Wonderful Journey*, which was *Heaven Can Wait* when it was done at the Bucks County Playhouse, New Hope, Pennsylvania, and *Here Comes Mr. Jordan* when it was done as a motion picture in 1939. Mr. Segall's play was written for the theater, but was first made into a film before it finally ended where the playwright first intended the fantasy to be performed; Jean Dalrymple presented a revival of the George Manker Watters–Arthur Hopkins comedy, *Burlesque*, co-starring Bert Lahr and Jean Parker; Barnard Straus and Roland Haas produced *Temper the Wind*, which had been done at the Woodstock, New York, summer theater under the title of *Drums of Peace*.

VERNON RICE.

TIBET. A dependency of China in central Asia. Area, 463,200 square miles; population variously estimated at from 700,000 to 6,000,000. Capital, Lhasa, 50,000 inhabitants. Lamaism, a development of Mahayana Buddhism, is the religion of the people. Chief occupations: agriculture, stock raising, wool spinning, and knitting. The principal minerals are gold, borax, and salt. There is a factory for the manufacture of army equipment, uniforms, coins, and paper money. Trade is carried on with China and India.

Civil and religious authority is vested in the Dalai Lama, acting through a Prime Minister appointed from among the principal Tibetan lamas. The latter is assisted by a grand council of four members. The 14th Dalai Lama is a Chinese peasant boy selected in 1939 as the reincarnation of the 13th Dalai Lama who died in 1933. Enthroned Feb. 22, 1940, he took the name of Jampel Ngawang Lobsang Yishey Tenzing Gyatso. During his minority, supreme power remains in the hands of the regent who assumed control when the 13th Dalai Lama died.

TIN. Tin mining, in areas of the Far East liberated from the Japanese, which in the prewar period produced 70 percent of the world's supply, was able to resume on only a limited scale in 1946. As a result, world supply was far short of consumer demand, and was severely rationed in all consuming countries.

It was estimated that Far Eastern production would amount to from 24,000 to 30,000 tons in 1946, compared with an average prewar annual production of 160,000 tons. Poor condition of the mines following the Japanese retreat, lack of equipment, political unrest, and inadequate food supplies contributed to the delay in returning to full production. Tin stocks, in the form of pig tin, concentrates, and solder recovered from the Japanese were about 41,000 tons. It was estimated that 1947 production from the Far East would be at only about 50 percent of the prewar rate, and that full scale production would not be reached until 1948 or 1949. Total world production for the year was only slightly higher than in 1945.

Secondary tin recovery from scrap in the United States helped fill this country's needs, totaling about 2,400 tons as metal and 21,300 tons tin content in the form of solder, alloys, and chemical compounds. United States consumption of new and secondary tin in 1946 was about 81,000 tons.

World consumption of new tin during 1946 was at the rate of approximately 115,000 tons annually. The difference between Far Eastern production and this consumption rate was made up by production from other areas (See Table) and by continued withdrawals from prewar stocks, which had been carefully doled out since the start of the Japanese war. Allocations of world tin production

ESTIMATED WORLD TIN PRODUCTION
(In Tons)

	1946	*1947*
Bolivia	38,000	38,000
Belgian Congo	14,000	14,000
Nigeria	12,000	12,000
Malaya	15,000	41,000
Dutch East Indies	8,000	29,000
Siam	6,000	12,000
French Indo-China	1,000	1,000
Spain and Portugal	1,200	1,200
United Kingdom	1,400	1,400
Africa (other than Belgian Congo and Nigeria)	1,200	1,200
Argentina	500	500
Mexico	300	300
Canada	400	400
Burma		1,500
China	2,000	8,000
Australia	2,200	2,200
Total	103,200	163,700

Source: *The Iron Age*

were made to most consuming nations by the Combined Tin Committee, whose membership comprised most of the important consuming countries. For the first nine months, imports into the United States comprised about 32,000 tons of tin in ore, later smelted at Texas City, Texas, and 6,566 tons of metal. In general, the greater portion of the ore came from Bolivia, with a small amount of high grade ore from the Netherlands East Indies. Great Britain drew from Bolivia, Nigeria, and Belgian Congo. As a result of careful husbanding of stocks during the war it was estimated that Britain and the United States still held between them, late in 1946, stocks in excess of 100,000 tons, consisting of approximately 60,000 tons in pig tin and 40,000 tons in ore and concentrates.

Prices paid producers varied widely throughout the world, ranging from 76 cents per pound in South Africa to 54 cents per pound in Malaya. Procurement, distribution, and sales in Great Britain and the United States were conducted by the respective governments. Sales to domestic consumers were on the basis of 54 cents per pound in Great Britain and 52 cents per pound in the United States. The United States government sales price was raised in November to 69.5 cents per lb., more closely representing the cost to the government.

Uses of tin were strictly regulated. Tin plate (principally for canning) required the largest amount of tin, with brass and bronze solder, bear-

ings and other industrial uses taking most of the remainder. Use of tin in toys, ornaments, and other non-essential products was prohibited.

CHARLES T. POST.

TOGO, French. The part of Togo mandated to France by the League of Nations. Area, 21,893 square miles. Population (1938), 780,497. Capital: Lomé (14,380 inhabitants). The main products are cocoa, palm oil, copra, coffee, and cotton. Trade (1939): imports 91,644,000 francs; exports 74,227,000 francs (franc averaged $0.0251 in 1939). Budget (1939): 50,534,000 francs; in addition, the railway budget was 12,889,000 francs. Railways (1940): 242 miles. Shipping (1938): 386 ships cleared the ports of Lomé and Anecho.

TOGOLAND. The part of Togo under British mandate from the League of Nations, attached to the Gold Coast, British West Africa, for administrative purposes. Area, 13,041 square miles. Population (1940 estimate), 391,473. The Governor of the Gold Coast serves as administrator of the British area. In 1946 the territory was recommended by Great Britain for United Nations trusteeship and accepted. The chief exports are palm oil, palm kernels, cocoa, kola nuts, and coffee. Cotton textiles are imported in quantity. Trade, finance and education figures are combined with those of the Gold Coast. See also TOGO, FRENCH.

TOKELAU (Union Islands). A group of islands (Fakaofo, Nukunono, Atafu) in the Pacific (8° to 10° S. and 171° to 173° W.), formerly part of the Gilbert and Ellice Islands colony, transferred to the jurisdiction of New Zealand on February 11, 1926. Area: 4 square miles. Estimated population (June, 1942), 1,364. The Government was under supervision of the administrator of Western Samoa.

TOKYO WAR CRIMES TRIALS. The International War Crimes Trials in Tokyo developed out of an exchange of communications and representations between the Supreme Commander for the Allied Powers and the Executive, State, War, Navy, Justice, and other appropriate departments of the United States Government, and from an exchange of views between governments signatory to the Instrument of the Japanese surrender. This was consequent to the Potsdam Declaration, which announced, in Article 10: "We do not intend that the Japanese shall be enslaved as a race or destroyed as a nation, but stern justice shall be meted out to all war criminals . . ."

These terms were upheld in similar wording in the Instrument of Surrender, signed by the authorized representatives of the Japanese Emperor and the Japanese Government.

On November 29, 1945, the President of the United States, ". . . to enable Joseph B. Keenan, as Chief of Counsel in the preparation and prosecution of charges of war crimes against the major leaders of Japan and their principal agents and accessories . . ." empowered the Chief of Counsel with authority to select and recommend to the President any personnel, appropriations, or expenditures, from the various government departments, establishments, or agencies, including the various branches of the armed services, which might be deemed necessary to the completion of his duties and functions, and to cooperate with and receive the assistance of any foreign government to the extent deemed necessary for the successful accomplishment of his mission.

On December 8, the Supreme Commander for the Allied Powers established the International Prosecution Section and designated Joseph B. Keenan as Chief of Counsel and of the Section.

The Charter. International courts for the trial of national leaders as major war criminals had never been set up after any war in the past. In order to establish a court before which to try the Japanese leaders to be accused, it was necessary to draw up a constitution.

The Charter was completed and established by the Supreme Commander for the Allied Powers on January 19, 1946.

The Charter designated an International Military Tribunal "for the just and prompt trial of the major war criminals of the Far East." Not less than five nor more than nine members were to constitute the Tribunal. These were to be appointed by the Supreme Commander for the Allied Powers from nominations submitted by the governments which were signatory to the Instrument of Surrender.

The definition of national leaders as war criminals was set forth in this Charter as follows:

"Article 6 Responsibility of Accused. Neither the official position at any time of the accused, nor the fact that the accused acted pursuant to order of his government or of any superior shall, of itself, be sufficient to free such accused from responsibility for any crime with which he is charged, but such circumstances may be considered in mitigation of punishment if the Tribunal determines that justice so requires."

Establishment of the Tribunal. The membership of the Tribunal was set forth in the Charter to conform with the number of United Nations who were signatory to the Instrument of Surrender—Great Britain, France, Russia, China, Australia, New Zealand, Canada, Netherlands, and the United States. However, the peoples of India and of the Philippines had felt Japanese aggression over a prolonged period of time. An increase in the membership of the Tribunal to a maximum of eleven was therefore suggested, ratified by the Far Eastern Commission, and established on April 26, 1946, by the Supreme Commander for the Allied Powers.

Representatives on the Tribunal, and also Associate Prosecutors from the eleven nations, arrived in Tokyo and were appointed to their positions as follows:

Mr Joseph B. Keenan, as Chief of Counsel from the United States, Chief of the Prosecution Section, Mr Arthur S Comyns-Carr, as associate prosecutor from the United Kingdom, the Honorable Sir William Flood Webb, the Chief Justice of the Supreme Court of Queensland, as member of the Tribunal from the Commonwealth of Australia, the Honorable Mr. Justice Erima Harvey Northcroft, Judge of the Supreme Court of New Zealand, as member of the Tribunal, Mr Justice Alan James Mansfield, as associate prosecutor from the Commonwealth of Australia, Brigadier Roland Henry Quilliam as associate prosecutor from the Dominion of New Zealand, Brigadier Henry Gratton Nolan, as associate prosecutor from the Dominion of Canada; the Honorable Mr Justice F Stuart MacDougall, as member of the Tribunal from the Dominion of Canada; the Honorable Mr Justice Bernard Victor C. Roling, Judge of the Utrecht Court, as member of the Tribunal from the Kingdom of the Netherlands, the Honorable Mr. Justice John P Higgins, of the Massachusetts Supreme Court, as member of the Tribunal from the United States; Lord Patrick, as member of the Tribunal from the United Kingdom; Mr Justice W G F Borgerhoff-Mulder, Justice of the Special Court of War Criminals, the Hague, as associate prosecutor for the Kingdom of the Netherlands; the Honorable Mr. Justice Mei Ju-Ao, Chairman, Foreign Affairs Committee, Yuan Province, as member of the Tribunal from China; Judge Hsiang Che Chun, as associate prosecutor from China, the Honorable Justice Henri Bernard, Advocate General Premier Class, as member of the Tribunal from France, Mr. Robert Oneto as associate prosecutor from France, Mr Pedro Lopez as associate prosecutor from the Philippines; General I. M Zaryanov, Major General of Justice, as member of the Tribunal from the Union of Soviet Socialist Republics; Minister S. A. Golunsky, Director of Judicial Science, as associate prosecutor from the Union of Soviet Socialist Republics; Mr.

Govinda Menon, as associate prosecutor from India; the Honorable Mr. Justice R. M. Pal, former Judge of the Calcutta High Court, as member of the Tribunal from India; the Honorable Mr. Justice Jaranilla, member of the Supreme Court of the Philippines, as member of the Tribunal; Sir William Webb was designated by the Supreme Commander for the Allied Powers as President of the International Military Tribunal for the Far East.

The Courtroom. After a number of buildings had been inspected to determine a suitable site for the trials, the War Ministry Building was selected in January, 1946. By March, the courtroom inside this building was all but completed. The headphones were built so that the listener could hear what was said in English and translated into Japanese—or vice versa—over one channel, and, by moving a small switch, could hear the same discourse entirely in his own language through a separate channel. The glassed-in booth behind the distinguished visitors' box was subdivided into sections; in each section sat one or more translators interpreting in languages other than Japanese and English at the same time of such discourse or as rapidly following it as possible. Thus, an address, while being delivered in Russian from the speakers' platform, could be simultaneously translated into English, Japanese, Chinese, French, or other language as might be required.

Development of the Prosecution's Case. In order to determine those to be accused and prepare an indictment against them, it was first necessary to determine the logical beginning and logical extent of the prosecution's case. It was immediately apparent from the already known and early discovered facts that plans and actions of Japanese military, diplomatic, and political leaders against peoples of other nations of the Far East, particularly those peoples of the Republic of China, could not go unexplored, especially since all of them seemed ultimately to lead into Pearl Harbor and the war against the United States. There seemed no logical place to start short of the Manchurian Incident of September, 1931—so long considered as the real beginning of World War II.

Because of its scope, the case was divided into eleven different phases.

The Indictment. From December 1945 to April 1946 the preparation of a carefully worded indictment went forward during constant meetings of the associate prosecutors. During this time suspects were selected to be accused. On April 29 the indictment, signed by each of the eleven associate prosecutors, and directed against 28 accused, was lodged with the Tribunal in both English and Japanese. The accused were arraigned May 3 and on that date the indictment was read. It consists of an introductory summary, 55 separate counts, and appendices in the nature of Bills of Particulars. It lists the defendants and gives their official biographies and affiliations. At the time of the arraignment all of the accused were present and all were represented by counsel. All entered pleas of not guilty. The Defense Counsel requested a continuance until June 3. The Tribunal granted this.

On June 3, the Tribunal reconvened and continued its session until June 4, on which date the Opening Address was read by the Chief of the International Prosecution Section. This statement reiterated the main points of the indictment. A further application for continuance, made by the Defense Counsel, was granted until June 13. Later, on July 15, court was adjourned for necessary repairs and installations in the courtroom. On July 22, Justice Higgins, United States member of the Tribunal, resigned to resume his duties on the Supreme Court of Massachusetts. Major General Myron C. Cramer, former Judge Advocate General of the United States Army, relieved Justice Higgins as the United States member on the Tribunal.

The Defense. In order to assure a fair trial, prominent members of the American Bar, as well as legal officers of the United States military services, were made available to the defendants. This personnel augmented the Japanese counsel chosen by the defendants. All counsel were approved by the Supreme Commander for the Allied Powers. The American counsel provided the defendants with an understanding of the case and their position, clarified points of law and questions concerning trial procedure, and in other ways assisted the defense. Captain Beverly M. Coleman, USN, was originally appointed Chief of Defense Counsel. He led the defense through the opening arguments and issues of the trial and subsequently resigned and assumed duties elsewhere.

The Defense moved to dismiss the trials on the grounds of a prejudiced court, with some of the members of the Tribunal having had previous experience in the investigation or trial of Japanese in other areas; that there was no precedent for such a Tribunal or for the holding of trials of such nature; and that the defendants were being tried before the crimes with which they were charged had been established as legal crimes in any comparable law. The Defense also argued that inasmuch as certain evidence submitted indicated that many more than the originally indicted 28 defendants might be involved under the classifications of crimes as set forth in the Indictment, it was contrary to justice to hold responsible only the 28 accused.

Since the inception of the trials in Tokyo, expert opinion has differed on their advisability and even on the methods used. In addition to arguments on points of law submitted by the defense, any general dissatisfaction with such trials may be said to fall into two main groups.

Extreme opinion in the one group is that such trials are only a camouflaged version of imposing the will of the conqueror upon that of the vanquished—of making the loser pay. The extreme argument in the other group is that the most expeditious and least expensive way to have handled such criminals would have been to invoke capital punishment at the outset without any recourse to judicial procedure. The scope and the characteristics of the Tokyo trials—including the number and cultural differences of the nationalities involved, the geographic area, population, and history covered, the problems of language and interpretation, and the difficulties in finding witnesses and documents—have offered opportunity for testing the application of international law to major war criminals in an extensive sense.

Those who answer the criticisms advanced against the trials point out that the world has experienced two great wars within the last 25 years, the latter more enveloping than the former, and that the repercussions of both wars might not have been felt with increasing violence and completeness among the people in separate countries if those countries themselves had not advanced into a state of greater interdependence during the same period of time. It is further argued that the second was much more far-reaching than the first. It was called by leaders of nations, "total war." Into it were drawn more military personnel than ever before engaged in war. In addition, people themselves, in every walk of life and of every age, were subjected to the direct acts of warfare. War actu-

ally proved itself to be no respecter of persons. On the basis of these arguments, it is concluded that where human life is involved, the strongest measures of justice, invoked speedily, are called for.

The Charges. The Indictment, as outlined in the Opening Address:

"The indictment consists of an introductory summary, the counts charging war crimes, and appendices which are in the nature of Bills of Particulars. The offenses charged are in three groups, namely: Group One, Crimes against Peace; Group Two, Murder; and Group Three, Conventional War Crimes and Crimes against Humanity.

"In Group One, Crimes against Peace as defined in the Charter are charged in thirty-six counts. In the first five counts the accused are charged with conspiracy to secure the military, naval, political, and economic domination of certain areas, by the waging of declared or undeclared war or wars of aggression and of war or wars in violation of international law, treaties, agreements, and assurances. Count 1 charges that the conspiracy was to secure domination of East Asia and of the Pacific and Indian Oceans; Count 2, domination of Manchuria; Count 3, domination of all China; Count 4, domination of the same areas named in Count 1, by waging illegal wars against sixteen specified countries and peoples. (Note: The countries include the United States of America, the British Commonwealth of Nations [which expression wherever used in this indictment includes the United Kingdom of Great Britain and Northern Ireland, the Commonwealth of Australia, Canada, New Zealand, South Africa, India, Burma, the Malay States, and all other parts of the British Empire not separately represented in the League of Nations], the Republic of France, the Kingdom of the Netherlands, the Republic of China, the Republic of Portugal, the Kingdom of Thailand, the Commonwealth of the Philippines, and the Union of Soviet Socialist Republics, or such of them as might oppose that purpose.)

"In Count 5 the accused are charged with conspiring with Germany and Italy to secure the domination of the world by waging of such illegal wars against any opposing countries. The prosecution charges in the next twelve counts (6 to 17) that all or certain accused *planned and prepared* such illegal wars against twelve nations or peoples, identifying in a separate count each nation or people attacked pursuant thereto. In the next nine counts (18 to 26) it is charged that all or certain accused *initiated* such illegal wars against eight nations or peoples, identifying in a separate count each nation or people so attacked. In the next ten counts (27 to 36) it is charged that the accused *waged* such illegal wars against nine nations or peoples, identifying in a separate count each nation or people so warred upon.

"In Group Two, murder or conspiracy to murder is charged in sixteen counts (37 to 52). It is charged in Count 37, that certain accused conspired unlawfully to kill and murder people of the United States, the Philippines, the British Commonwealth, the Netherlands, Thailand (Siam), by ordering, causing and permitting Japanese armed forces, *in time of peace*, to attack those people in violation of Hague Convention III, and in Count 38, in violation of numerous treaties other than Hague Convention III.

"It is charged in the next five counts (39 to 43) that the accused unlawfully killed and murdered the persons indicated in Counts 37 and 38 by ordering, causing and permitting, *in time of peace*, armed attacks by Japanese armed forces, on December 7 and 8, 1941, at Pearl Harbor, Kota Bahru, Hong Kong, Shanghai, and Davao. The accused are charged in the next count (44) with conspiracy to procure and permit the murder of prisoners of war, civilians and crews of torpedoed ships.

"The charges in the last eight counts (45 to 52) of this group, are that the accused, by ordering, causing and permitting Japanese armed forces unlawfully to attack certain cities in China (Counts 45 to 50) and territory in Mongolia and of the Union of Soviet Socialist Republics (Counts 51 and 52), unlawfully killed and murdered large numbers of soldiers and civilians.

"In Group Three, the final group of counts (53 to 55), other Conventional War Crimes and Crimes against Humanity are charged. Certain specified accused are charged in Count 53 with having conspired to order, authorize and permit Japanese commanders, War Ministry officials, police and subordinates, to violate treaties and other laws by committing atrocities and other crimes against many thousands of prisoners of war and civilians belonging to the United States, the British Commonwealth, France, the Netherlands, the Philippines, China, Portugal, and the Union of Soviet Socialist Republics.

"Certain specified accused are directly charged in Count 54, with having ordered, authorized, and permitted the persons mentioned in Count 53 to commit offenses mentioned in that count. The same specified accused are charged in the final count (55) with having violated the laws of war by deliberately and recklessly disregarding their legal duty to take adequate steps to secure the observance of conventions, assurances, and the laws of war, for the protection of prisoners of war and civilians of the nations and peoples named in Count 53.

"Summarized particulars in support of the counts in Group One are presented in Appendix A. Dates, places and other details are stated for instances of military aggression, beginning in Manchuria and expanding into many other areas and periods. In Appendix B are collected articles of treaties violated by Japan, as charged in the counts for Crimes against Peace and the crime of murder. In Appendix C are listed official assurances violated by Japan and incorporated in Group One, Crimes against Peace. Conventions and assurances concerning the laws and customs of war are discussed in Appendix D, and particulars of the breeches of the laws and customs of war for which the accused are responsible are set forth therein. Individual responsibility for crimes set out in the indictment and official positions of responsibility held by each of the accused during the period with which the indictment is concerned are presented in Appendix E."

Among the 28 accused, each named on several of the above counts, were the following: Sadao Araki, Kenji Dohihara, Kingoro Hashimoto, Shunroku Hata, Kiichiro Hiranuma, Koki Hirota, Naoki Hoshino, Seishiro Itagaki, Okinori Kaya, Koichi Kido, Hyotaro Kimura, Kuniaki Koiso, Iwane Matsui, Yosuke Matsuoka, Jiro Minami, Akira Muto, Osami Nagano, Takasumi Oka, Shumei Okawa, Hiroshi Oshima, Kenryo Sato, Mamoru Shigemitsu, Shigetaro Shimada, Toshio Shiratori, Teiichi Suzuki, Shigenori Togo, Hideki Tojo, Yoshijiro Umetsu.

ROBERT L. GUILL.

TRACK AND FIELD ATHLETICS. The return of many stars from the service helped track and field along

the comeback trail last year and the sport, which had dipped to an all-time low the previous campaign, was well on its way to complete recovery before 1946 drew to a close.

The mile run, big glamour event of yesteryear, lost much of its lustre and Leslie MacMitchell, back in competition after a three-year stretch in the Navy, dominated his rivals, although his best effort was a 4:12.3 race.

MacMitchell won eight consecutive tests during the indoor season, including the title mile in the colorful national A.A.U. championships held in Madison Square Garden. The visit to this country of Marcel Hansenne—one of Europe's top runners and certainly the best France has developed in many years—added considerable appeal to the campaign. Although the invader was unaccustomed to our board tracks and failed to win a major race, he showed steady improvement in his short stay here and left the impression that he will be a strong contender in the 1948 Olympics.

Hansenne finished third behind MacMitchell and Tommy Quinn, the New York A.C. veteran, in the Millrose A A. and Boston A.A. games and fourth to MacMitchell, Quinn, and Forest Efaw in the New York A.C. meet. However, in his last appearance in this country, Hansenne thrilled 15,000 fans gathered for the Knights of Columbus show by pressing MacMitchell all the way. The Bronx Express had to run his best race of the season to beat the Frenchman and Quinn by a scant three yards.

Although MacMitchell unquestionably proved himself the mile king of the country, Fred Sickinger of Manhattan College, who had served with the Fifth Army, generally was considered the top performer of the season on the boards. Sickinger, winner of seven straight races after losing in a 600 to Maurice Callender at the outset of the campaign, took four races at 1,000 yards, two at 880 and one at 600. He holds the Intercollegiate A.A.A.A. 600, metropolitan 1,000 and national 1,000 championships.

The New York A.C., which also retained its outdoor crown, led a strong field for team laurels in the national A.A.U. games that climaxed the indoor drive. Joe Megysey, walking ace; Henry Dreyer, perennial weight-throwing king; and John Vislocky scored firsts for the Winged Foot squad. Ed Dugger, hurdling veteran from the Dayton A.C., registered the only double of the meet, skimming over the low and high barriers to two titles.

Herb McKenley, 21-year-old British subject from Jamaica who ran for the University of Illinois, and Bob Fitch, Minnesota star, accounted for two of the major records that fell during the year. McKenley, best quarter-miler to appear in many moons, was clocked in 0:46.2 in the Western Conference 440 to erase the standard established by Ben Eastman of Stanford in 1932. Fitch tossed the discus 179 feet ⅛ inch for a new world record in the national A.A.U. outdoor championships staged under a blazing sun at San Antonio, Texas. The former universal mark was 174 feet, 10¾ inches held by Adolfo Consolini of Italy since 1941.

The A.A.U. title games proved the highlight of the outdoor season and were aided by the appearance of another European star, Lennart Strand of Sweden. Strand, 4:04.8 conqueror of Gunder Haegg and Arne Andersson in the Summer of 1945 and champion of his country at 1,500 meters, more than lived up to everything that had been said and written about him as he captured this nation's 1,500-meter crown. In leading home MacMitchell and Quinn by 30 and 40 yards, respectively, the Flying Swede was caught in 3:54.5. Strand, who had won at Compton, California, in his first start over here, closed out his visit with a 4:09 mile in New York's Triborough Stadium. Finishing with a terrific burst of speed, Strand left Quinn, Ed Walsh, and MacMitchell strung out in that order from 60 to 120 yards behind.

With Frank Martin, Ed O'Toole, James Rafferty, Irving Folsworth, and Frank Berst scoring first places, the New York A.C. added another A.A.U. outdoor crown to its ever-growing collection. Martin won the 5,000-meter run and O'Toole the 10,000 while Rafferty annexed the 3,000-meter steeplechase; Folsworth the 16-pound hammer throw; and Berst the 56-pound weight toss.

Illinois, paced by the churning legs of McKenley, proved outstanding in all intercollegiate competition which it was able to enter. The Illini took Western Conference laurels indoors and out and captured top prize in the National Collegiate A.A. outdoor championships. McKenley was a double victor in the N.C.A.A. games, annexing the 220 and 440.

Tuskegee Institute, led by Miss Alice Coachman, dominated the women's competition again in 1946 and retained two national A.A.U. team championships. Miss Coachman scored a triple in the outdoor games, winning the 50- and 100-meter dashes and the running high jump after gaining a double in the 50-yard sprint and high jump indoors. Miss Dorothy Dodson of Chicago was the shining light of the field events, taking the javelin throw, discus and shotput outdoors and the shotput indoors.

A new schoolboy star rose in the West and established a national interscholastic record for the 12-pound shotput. John Frank Helwig of Mount Carmel High School in Los Angeles put the ball 59 feet 5⅞ inches to surpass the previous standard of 59 feet, 1½ inches set by Dewitt Coulter, former Army football star, in 1943. Helwig, who is 19, has gone unbeaten in his specialty in more than twenty meets over a period of three years.

THOMAS V. HANEY.

TRADE, Foreign. As settlement of the maritime strike in October permitted renewed activity in domestic shipping, the value of exports in December rose to a new 1946 high of $1,094 million from the low October value of $537 million and a previous high of $987 million in November. General imports also advanced to a new high of $536 million in December.

The tonnage of export cargo in December dropped to 17,413 million pounds from the November volume of 18,899 million pounds. In contrast to the rise in value, the December import shipping weight of 10,767 million pounds showed only a slight decrease over the November figure of 10,909 million pounds and was lower than in each of the months of July, August, and September.

The monthly and yearly figures of United States foreign trade for 1946 and 1945 are shown in the accompanying tables on page 657.

TRANS-JORDAN. An Arab territory lying east of Palestine and south of Syria. Together with Palestine it was turned over to Great Britain as a Class A Mandate on Sept. 29, 1923. Area, 34,700 square miles. Capital, Amman.

Population. The population is around 400,000, almost exclusively Arab. Many are nomads, for there are few towns and no large cities in the country. The people are Moslem except for some 50,000 Christians. In 1944 the 175 schools had 16,066 pupils. (*continued, foot of p. 657.*)

UNITED STATES FOREIGN TRADE
(Value in millions of dollars)

1946 Month	Exports	Commercial Exports	UNRRA Exports	U.S. Gov't. Exports	Lend-Lease Exports	General Imports
January	799	538	125	5	130	394
February	670	470	91	12	96	318
March	815	586	107	7	116	384
April	757	582	90	5	80	407
May	851	652	122	9	67	397
June	878	683	118	19	57	386
July	825	646	118	24	37	433
August	883	748	78	23	34	425
September	643	563	46	22	12	376
October	537	512	11	6	8	399
November	987	904	52	23	9	482
December	1,094	1,022	55	9	7	536
Total January–December	9,738	7,907	1,015	163	654	4,934

UNITED STATES EXPORTS OF DOMESTIC AND FOREIGN MERCHANDISE AND DOMESTIC MERCHANDISE

Month	Value (Millions of dollars) 1945	Value (Millions of dollars) 1946	Shipping Weight (Millions of pounds) 1945	Shipping Weight (Millions of pounds) 1946
Domestic and foreign merchandise				
January	902 8	798 7	10,502	17,511
February	886 6	669 9	9,661	16,808
March	1,030 1	815 4	12,977	19,025
April	1,005 4	756 8	15,919	15,408
May	1,135 5	850 6	18,864	13,314
June	870 3	877 7	18,502	19,275
July	893 2	825 5	18,152	23,534
August	737 4	883 0	15,966	24,646
September	514.4	642.7	17,665	21,078
October	455 3	536 8	16,009	17,301
November	638 9	987 4	17,820	18,899
December	736 1	1,093 5	15,359	17,413
Total January–December	9,805 9	9,737 9	187,398	224,211
Domestic merchandise				
January	895 9	778 8	10,449	17,425
February	877.7	649 1	9,598	16,709
March	1,017 1	786 6	12,847	18,917
April	987 2	739 3	15,798	15,273
May	1,118 7	815 0	18,741	13,129
June	848 4	858.1	18,421	19,166
July	858 8	807 3	17,956	23,370
August	716 6	860.1	15,748	24,484
September	500 1	626 9	17.538	20,960
October	440 5	528 8	15,917	17,186
November	612 3	965 7	17,740	18,776
December	715 2	1,080 2	15,167	17,352
Total January–December	9,588 5	9,496 0	185,920	222,747

UNITED STATES IMPORTS

Month	1945 (Millions of dollars)	1946 (Millions of dollars)
General imports		
January	333 9	393 5
February	325 5	317 6
March	364 8	384 5
April	366 1	407.1
May	372.1	397 4
June	359 6	385 9
July	355 7	433 8
August	359.7	425 7
September	334 7	377 8
October	344 4	393 7
November	322 4	481 4
December	297 2	535 8
Total January–December	4,135.9	4,934 3
Imports for consumption		
January	355 2	400 1
February	331 4	307.0
March	365 8	374 0
April	356 0	394 9
May	362 1	389 7
June	338 8	371 7
July	345 6	422 0
August	355 0	415 6
September	329 3	378 6
October	343 7	396 5
November	312 6	469 7
December	279 5	497 6
Total January–December	4,074 8	4,817.5

(Trans-Jordan, continued from p. 656.)

The Economy. Most of the area is desert or semi-desert. Only in the western part is agriculture possible, and even there it is precarious. Irrigation could work wonders on the country's productiveness but few sources from which water could be obtained are available. In 1942 record crops of 200,000 tons of wheat and 100,000 tons of barley were reported. The terrain and climate are adapted to raising sheep and goats.

There is very little international trade in or out of the country. The Hejaz Railway runs through Amman as far south as Ma'an, beyond which point it has been abandoned. Under the mandatory regime several modern highways were constructed, notably one connecting Palestine with Iraq.

Government. Originally Trans-Jordan was administered as part of the Palestine Mandate. However, the stipulations concerning Jewish immigration were not to apply to Trans-Jordan, which is thus closed to Zionist colonization. An autonomous Arab administration was recognized under the Emir Abdullah (son of the late King Hussein of the Hejaz) whose government was to operate within the framework of the mandate. The High Commissioner for Palestine held the same office for Trans-Jordan, and was represented in Amman by a British Resident. During 1946 Trans-Jordan became an independent Kingdom (see below) closely tied, by a military alliance, to Great Britain. The King is assisted by a Council of Ministers and a Legis-

lative Assembly. The defense of the country is entrusted to the Trans-Jordan Frontier Force and the Arab Legion.

Events. On January 17 Foreign Secretary Ernest Bevin announced in the United Nations Assembly that Great Britain was preparing to give Trans-Jordan its independence. Zionist elements immediately protested, asserting that Britain had no legal right thus to act unilaterally with regard to an area under League of Nations mandate. Britain had long been under attack from these same sources for having split Trans-Jordan off from the original Palestine mandate and for having forbidden Jewish settlement east of the Jordan. The Arabs, on the other hand, were pleased because independence would remove the threat that Trans-Jordan might, by a reversal of British policy, be opened to Zionist colonization. To be sure, the enthusiasm of King Ibn Saud was checked by his jealousy, thoroughly reciprocated, of the Hashimite family represented in Trans-Jordan by the Emir, and King-to-be, Abdullah. Further, there were the Saudian territorial claims to parts of Trans-Jordan —around Aqaba and Ma'an, as well as a corridor in the east leading to Syria.

Abdullah arrived in London on February 22, and a month later he signed a treaty with Great Britain which gave his country its independence and set up an alliance between them. The text of this treaty was published on March 28 as a *White Paper*. Under its terms Trans-Jordan was to open to Britain its lines of communication—roads, railways, airports, pipelines, etc.,—while the British undertook to maintain the Arab Legion, which under Glubb Pasha had become a first-class fighting force for the defense of Trans-Jordan. The two countries exchanged pledges of mutual assistance in the event of trouble.

On April 2 the Lebanese delegation to the Council of the Arab League asked the latter to consider critically the provisions of the treaty, especially the military clauses. Several American Congressmen also protested to the Secretary of State against the treaty, which they felt was a violation of the Anglo-American Convention of 1924. In a letter addressed to Senator Myers of Pennsylvania (April 23), Mr. Byrnes denied any such violation.

At the end of May there was a three-day period of festivity and Bedouin pageantry in Amman to celebrate independence and to witness Abdullah's assumption of the Kingship.

On July 8 it was announced that Trans-Jordan had applied for membership in the United Nations. In August, when the matter came before the Security Council, both the Soviet Union and Poland questioned the reality of Trans-Jordan's "independence" and on July 29 used the veto to prevent that country from being admitted to membership.

A scheme long nurtured by Abdullah was the creation of a Greater Syria, probably exclusive of Lebanon, in which he hoped to play a stellar role. A more promising arrangement would appear to have been a form of loose federal union between the two countries ruled by the Hashimite house—Trans-Jordan and Iraq. Talk of such a limited union was heard early in the year after a conference between Abdullah and his kinsman, the Regent of Iraq, Prince Abdul Illah, uncle of the boy king, Faisal II. Again, on August 29, upon his return home from a visit with the Regent at Mosul, Abdullah declared that the two countries were planning to merge the direction of their military, foreign and cultural affairs and to form a customs union, but without losing entirely their separate identities. The common flag was to be the Hashimite standard flown during the Arab Revolt of World War I. On November 11, at the opening of the Trans-Jordan Legislative Assembly, Abdullah stated that his country was ready to join Iraq or any other Arab state in a union. The new constitution adopted by the Assembly, however, prohibited the king from making major political changes of this sort without its consent.

On August 8 the government of Trans-Jordan signed an agreement with the Transarabian Pipeline Co. granting a concession by which the latter was permitted to construct and maintain a pipeline across the country from the Saudi Arabian oilfields of the Arabian-American Oil Co., along the Persian Gulf, to Palestine, for a reported annual payment of $250,000.

ROBERT GALE WOOLBERT.

TREASURY, U.S. Department of the. A Department of the U.S. Government which was composed in 1945 of the following principal branches.

Bureau of the Comptroller of the Currency
Bureau of Customs
Bureau of Engraving and Printing
Bureau of Internal Revenue
Bureau of the Mint
Bureau of Narcotics (see NARCOTIC DRUGS CONTROL)
Committee on Practice
Division of Monetary Research
Division of Personnel
Division of Research and Statistics
Division of Tax Research
Legal Division
Office of the Chief Clerk
Fiscal Service
United States Savings Bonds Division
Foreign Funds Control
Office of Superintendent of Treasury Buildings
Procurement Division
U S Secret Service
United States Coast Guard
Office of the Tax Legislative Counsel

The Secretary of the Treasury in 1946 was John W. Snyder. See the separate listing of important bureaus; BANKS AND BANKING; COAST GUARD; FINANCIAL REVIEW; PUBLIC FINANCE; SILVER; TAXATION.

TRINIDAD AND TOBAGO. A united British colony near the coast of Venezuela, comprising the islands of Trinidad (1,864 square miles), Tobago (116 square miles), and adjacent islands. Total population (1946 census, provisional), 556,700. Capital, Port of Spain, Trinidad (105,195). Under agreements concluded between the United Kingdom and the United States defense bases were leased to the United States for 99 years. The colony is administered by a governor with the assistance of an executive council and a legislative council of 19, including 9 elected members. Most of the native inhabitants are of African descent, but there is a large group of East Indians as well as a small group of Chinese.

Production and Trade. The varied products of the islands include petroleum, asphalt, sugar, cocoa, rum and bitters, copra, rice, coffee, timber, and fruits The chief exports in 1944 were petroleum products, sugar, and cocoa. Imports were largely articles of food and drink and tobacco. The United Kingdom received the largest share of the exports but Canada was the chief source of imports.

TRUK. A former Japanese naval base in the west central Pacific, comprising a cluster of islands (151° 22′ E. and 6° 57′ N.) in a lagoon surrounded by coral reefs (32 miles across from east to west), in the eastern Caroline group of the mandated Japanese Pacific Islands (q.v.). Area, 51 square miles. Civil population (1938), 17,133. There are

245 islands in all, the chief being Dublon (3 miles long), Fefan, Moen, Tol, Udot, and Uman. The islands, of volcanic and coral formation, are for the most part high, and offer good protection and safe anchorages for ships. Truk passed under the control of United States armed forces following the surrender of Japan in 1945. On November 6, 1946, the United States requested that the island be placed under the trusteeship of the United Nations with the United States as administering authority.

TUNNELS. Many tunnel works which were halted when the war broke out, or in 1942–1943, are being renewed, but under the prevailing unfavorable conditions as to the supply of men, machinery, and materials. Of these tunnels, the majority are on hydraulic projects for irrigation and power development, although they include also a number for public roads, and others for municipal water supply. One of the long tunnels proposed is that of 77 miles which is to form part of an aqueduct for bringing water from the Colorado River to Phoenix and the arid central plateau of Arizona. This is still short, however, of the existing 82-mile rock tunnel bringing water from the Delaware River to increase the municipal supply of New York City.

A 30-mile, low-level, highway tunnel through the Cascade Mountains, under the Snoqualmie Pass, has been reported as impracticable for economic reasons. It was to be on a road connecting Seattle and Spokane, Washington, in sections of the State separated by the mountain range. However, a tunnel 3 to 5 miles long, at an elevation of about 2,500 ft., may be practicable and economical. Seattle plans twin, two-lane, highway tunnels, 3,-200 ft. long, to open up a direct route to the north. A combined road and railway tunnel connecting San Francisco and Oakland is proposed, for traffic is approaching the limit of the capacity of the present twelve-mile bridge. This tunnel would be comparatively short, mainly under the navigation channel, with approaches in long embankments or causeways. (See BRIDGES.)

A 26-mile tunnel through the Tehachapi Mountains, on a high-speed road between Bakersfield and Los Angeles, is proposed by the California State Highway Department. Its elevation would be 1,500 feet above sea-level. A curious feature is that it would be a double-deck tunnel, having four lanes for automobile traffic on the upper deck, a two-lane roadway for motor trucks and a double-track railway on the lower deck.

New ventilating apparatus was installed in the Hoosac Tunnel of the Boston & Maine R.R. in 1946 as the latest stage of the tunnel ventilation problem. This five-mile double-track tunnel, opened in 1873, is 24 feet wide and 22 feet 8 inches high. Originally it was ventilated by natural draft through a shaft, but with increasing traffic this became insufficient and in 1911 electric traction was introduced, using electric locomotives to haul trains through the tunnel (steam locomotives and all). In 1945, this method of operation was changed; the trains over the entire division are drawn by oil-electric locomotives, and a new ventilating fan equipment was put in service in the tunnel during the year 1946.

Two tunnels are being driven to bring water from the western slopes of the Rocky Mountains for distribution on the eastern slopes. One is a 23-mile tunnel, nine feet in diameter, for the city supply of Denver. The other is the 13-mile Continental Divide tunnel of the U.S. Bureau of Reclamation for irrigation in Colorado. The latter is practically completed. On the Provo River project of the Bureau of Reclamation, work on the Duchesne tunnel, 6 miles long and 9 ft. 3 in. in diameter, is to be resumed soon. On the Colorado–Big Thompson project are the Rams Horn and Prospect Mountain tunnels; the first 1.3 miles long and 10 ft. in diameter, the second, 1.1 miles long and 12½ ft. in diameter. On the Columbia Basin project, in Washington, is the 2-mile Bacon tunnel, 23 ft. in diameter.

In Texas, the State Highway Department is interested in two highway tunnels under the Houston Ship Channel and a third under the channel separating Galveston from the mainland. One of the Houston tunnels is expected to be started in 1947. At Birmingham, Ala., a highway tunnel through Red Mountain is proposed to facilitate traffic movements in and out of the city. At Chester, Pennsylvania, a highway tunnel under the Delaware River is planned by the Chester County authorities.

New York City has a number of highway tunnel projects, but the only one now under construction is the Battery-Brooklyn tunnel, work on which was resumed in 1945. It consists of two parallel tubes 32 feet in diameter, with center lines 48 feet apart. Bottom headings or pilot tunnels, 24 feet square, are kept in advance of the full-size bores. Two projects in the preparatory stages are the Brooklyn–Staten Island tunnel, under the Narrows, and the Crosstown tunnel to connect the Midtown tunnel under the East River with the Lincoln tunnels under the Hudson River. At Boston, it has been proposed to duplicate the present tunnel under the harbor to South Boston, owing to the heavy increase in traffic and the further increase expected with the opening of the new airport.

A serious fire occurred in the Montreal tunnel approach to the Canadian National Railway station, in January, 1946, and caused considerable damage and the blocking of the four-track tunnel with burning cars. In the repair work, the wide tunnel was divided by the construction of a central wall. In London, England, work is in progress on a large and long highway tunnel under the Thames to Dartford. A pilot tunnel was driven in 1937, but all work was stopped with the opening of war in 1939. A highway tunnel under the Tyne at Newcastle was authorized by the government in July, 1946. The irrepressible Channel Tunnel project, to connect the railways of England and France, came out again after the war, in 1945, but again faces strong opposition.

The Mont Cenis tunnel through the Alps, connecting the railways of France and Italy was reopened in September. It had been blocked by the retreating Germans by blasts, mines, and the wrecking of trains in the tunnel. In this sector of the war, the Germans made extensive use of the mountain tunnels as factories, aircraft repair shops, and barracks. France is building an eight-mile tunnel on a hydroelectric project in Morocco.

In Mexico, it was expected that the seven-mile El Mirador tunnel for irrigation near Puebla would be completed in 1946. It is 16 feet in diameter and was driven from the two portals and from an intermediate adit or horizontal side shaft. The water supply of the suburban district of Honolulu is to be increased by means of a two-mile tunnel from a new source. A grandiose project for the improvement of the Yangtse River, as planned for the Chinese government by the U.S. Bureau of Reclamation, includes a ship tunnel 200 feet high and 100 feet wide. This recalls the ship tunnel that was to form a part of the Darien or San Blas route for the Panama Canal.

E. E. RUSSELL TRATMAN.

TURKEY. A republic comprising Asia Minor and a narrow zone in Europe along the Straits, as well as Imbros, Tenedos and the Rabbit Islands in the Aegean Sea. Area, 296,107 square miles. Capital, Ankara (Angora).

Characteristics of the Population. The population on Oct. 20, 1940, was 17,820,950, of which 1,516,005 lived in European Turkey. The rate of increase is high, so that by the end of 1946 there were probably some nineteen million inhabitants in the country. The principal cities, with their 1944 populations are: Istanbul, 844,090; Izmir (Smyrna), 200,088; Ankara, 227,505; Adana, 100,367. Turkey is preeminently a rural country. After World War I she was deprived of almost all areas inhabited by non-Turkish elements, so that only a few national or religious minorities still remain within the country. These are chiefly Greeks, Armenians, Kurds and Circassians. Islam was disestablished as the state religion shortly after the First World War, but most Turks still profess it as their religion. The 1935 census provided the following figures: Moslems, 15,838,673; Orthodox, 125,046; Jews, 78,730; Gregorians, 44,526; and Roman Catholics, 32,155.

The educational system has been thoroughly reformed under the Republic. Primary education is nominally compulsory for both boys and girls. Education at all levels is under the supervision of the Ministry of Public Instruction, even that given in the schools of the non-Moslem communities. In 1942–43 there were 11,404 primary schools; 247 secondary schools; 214 lycées, normal and professional schools; and 23 institutions of higher learning. Among the latter are the State University of Istanbul and Robert College, an American-founded institution near that city. The use of the Latin alphabet was made compulsory in 1929.

The Country and Its Economy. Agriculture provides the means of livelihood for two-thirds of the Turkish people. The soil is generally fertile, but rainfall is often deficient and methods are primitive. Nonetheless rapid strides have been made in recent years to improve agricultural techniques and apparatus. The construction of new highways, railroads and factories has aided in the program of modernizing Turkish farm life.

The principal crops are indicated by the following statistics for 1942: wheat—4,369,455 hectares, 2,000,105 metric tons; barley—1,931,576 hectares, 902,095 metric tons; maize—631,132 hectares, 360,019 metric tons; cotton—326,687 hectares, 212,694 metric tons; tobacco—198,880 acres, 68,942,000 kilograms. Other large products are oats, silk, opium, figs, olives and olive oil. In 1943 the animal population was: 16,124,884 sheep, 11,815,622 goats, 7,170,930 cattle, 1,217,997 donkeys, 716,327 horses and 649,712 buffaloes. Wool and goat hair are among the country's chief exports. Unlike the other countries of the Near East, Turkey possesses valuable forest resources—some 23,000,000 acres, of which the state owns 88 percent.

Turkey is also rich in minerals, most of them little exploited. Production figures in metric tons for 1944 were: coal, 3,165,741; lignite, 553,695; chrome, 65,634; cement, 151,472. Experts believe that the future of Turkey's mining industry is bright.

The state has also, since the inauguration of the first five-year plan in 1934, pushed a program of rapid industrialization. Typical of this development was the construction of the iron and steel plant at Karabuk, with an estimated annual production of 219,000 metric tons of pig iron, 229,000 tons of coke, 171,900 tons of steel ingots and 150,000 tons of rolled steel products.

Exports and imports for 1943 were, respectively, valued at £T247,000,000 and £T203,000,000. The Turks have a small but growing merchant marine. The length of the country's railway network has been expanded greatly in recent years until it now exceeds 4,600 miles, of which 95 percent is state-owned.

Government. The Constitution of Jan. 20, 1921, as amended in 1924 and 1934, confers both executive and legislative power on the Grand National Assembly, or *Kamutay*. This body is elected every four years by universal direct male and female suffrage, and consists of 465 deputies. The constitutional law provides that "the Assembly exercise the executive power through the President of the Republic elected by itself and through the Council of Ministers chosen by him." The Assembly is nominally vested with power to control the acts of the Government and even to dismiss it. In reality, under both the first President, Kemal Ataturk, and the present incumbent, Ismet Inönü, there has been what amounts to a presidential dictatorship. Until the 1946 elections (see below) all members of the Assembly belonged to the Republican People's (or Popular) Party.

The reforms of Ataturk included a thorough revision of the judicial and legal systems. The new civil code was almost identical with that of Switzerland, the new Penal Code was largely based on that of Italy, and the Commercial Code on that of Germany.

The Turkish budget showed a steady rise in both revenue and expenditures during recent years. Revenues for 1946 were estimated at £T894,668,000, and expenditures at £T990,572,884. The national debt also rose during these years until on April 22, 1944, it was £T1,479,483,677.

Military service is compulsory and normally about one-half of the men liable actually serve. Following the outbreak of World War II, the precarious position of Turkish neutrality required that the army be considerably increased and that attempts be made to acquire more modern equipment, which Turkey herself does not manufacture. Some of her requirements were met by shipments of British and American arms. The Turkish Navy comprises the former German cruiser *Goeben* (rebuilt and now called the *Yavuz*) of 23,100 tons, two small and old cruisers, and various subsidiary vessels. The air force is equipped with foreign planes, chiefly German, British and American. Altogether Turkey's defense forces are, despite the absence of much necessary modern equipment, an important element in Near East politics and could, if called upon, give a good account of themselves. The Anatolian peasant has long enjoyed the reputation of making an excellent soldier, especially when on the defensive in his own hills.

Events, 1946. *Dispute with the Soviet Union.* The year opened with Turco-Russian relations clouded by the general fear that the Soviet Union was preparing to move forward in the Middle East. Turkish disquiet arose not only from events in Iran but from the troubled situation in the lower Balkans. As for the Kars and Ardalan districts in Turkish Armenia, Prime Minister Shukru Saracoglu officially rejected the Soviet claim to them on January 6. He pointed out that the Russian cession of these areas in 1921 had followed a plebescite in which the overwhelming majority of votes had been cast for union with Turkey. The territory in question contained only 6,600 square miles and 300,000 inhabitants, but was strategically important.

As the Iranian crisis deepened, the Turks became

more and more apprehensive, yet they never wavered in their determination to resist any attempt to encroach upon their national territory and sovereignty. As part of the "war of nerves," Armenian communities throughout the world joined in condemning Turkish rule and calling for the unification of all Armenian territory within the Soviet Union. An attempt to exploit Kurdish discontent was also made, e.g., an article in the Soviet periodical *Trud* (June 15) charged Turkey with abusing the Kurds.

By late spring the Iranian issue became less acute, but there was no real détente in relations between Moscow and Ankara. On July 18 President Inonu asserted that the Turkish Army would continue to be kept at war strength, as it had been since the early days of World War II. This meant keeping some million men under arms—a terribly serious drain on the country's already unbalanced economy.

In early August, immediately after Saracoglu had been replaced as Prime Minister by Peker, a new crisis supervened. On August 8 the Soviets sent a note to Turkey requesting a change in the regime of the Straits as fixed by the Montreux Convention of 1936. The gist of the Russian demand was that Turkey agree to the Straits being regulated in the future only by the Black Sea Powers (thus excluding Britain, France, and several of the other Montreux signatories). Moscow also asked that the defense of the Straits be made a joint Russo-Turkish responsibility.

The Russian position, as set forth in this note, is clearly elucidated by the following excerpts: "Events during the war showed clearly that the regime of the Black Sea straits established by the Montreux Convention in 1936 does not correspond to the interests of security of Black Sea powers and does not safeguard conditions that would prevent the use of these straits for hostile ends against the powers." The note contained five suggestions for a new straits pact:

"(1) The straits should always be open for the passage of merchant ships of all countries;

"(2) The straits should always be open for the passage of warships of the Black Sea Powers,

"(3) The passage through the straits of warships of non-Black Sea powers is not permitted with the exception of cases specially provided for,

"(4) The establishment of the regime of the straits as the only sea route leading out of and into the Black Sea must constitute the competence of Turkey and the other Black Sea powers,

"(5) Turkey and the Soviet Union, as the powers most interested in and capable of ensuing the freedom of merchant shipping and security in the straits, to organize by joint means the defense of the straits in order to prevent their use by other states for purposes hostile to the Black Sea powers."

What the Russians wanted was not to open the Straits wider, but to close them to all outside Powers, and they wanted to do this through bilateral negotiations with the Turks rather than through a general revision of the Montreux arrangement. The latter would entail a conference in which Russia would be only one among a dozen or so powers. The United States and Britain backed Turkey's refusal to cede to Russian pressure. In a note of August 19 the United States rejected Soviet demands for a share in the military control of the Straits, but expressed a willingness to revise the Montreux Convention. Britain took a similar line.

After receiving Turkey's flat rejection in a note of August 23, the Russians began charging, in the press and over the radio, that Britain was arming the Turks and that, for example, British officers were in charge of airports and other military installations on or near the Straits. On September 24 they delivered a new note to the Turks, reiterating that the Montreux regime had clearly been shown to be inadequate for preventing hostile vessels from entering the Black Sea, and suggesting Russo-Turkish talks before any general conference were held.

On October 9 Ambassador Smith handed the Russians an American reply, in which the Soviet government was reminded that the Potsdam Protocol had not contemplated a settlement of the Straits issue by the Black Sea Powers alone, but by all the interested states, including the United States. The note concluded with the following statement: "My government also feels that it would be lacking in frankness if it should fail to point out again at this time, in the most friendly spirit, that in its opinion the Government of Turkey should continue to be primarily responsible for the defense of the Straits and that should the Straits become the object of attack or threat of attack by an aggressor, the resulting situation would be a matter for action on the part of the Security Council of the United Nations." The Turkish reply of October 18 likewise rejected the idea of bilateral negotiations.

There the matter seemed to rest for the remainder of the year. By way of showing its interest in the eastern Mediterranean, the United States sent several American warships there late in the fall—four of them called at Izmir on November 23. Shortly thereafter the Turks extended martial law for another six months in the region along the Straits and in Thrace.

Other International Affairs. Relations with the Arab countries had been cool for a number of years, particularly since the Turkish annexation of the Alexandretta district (Hatay) in 1939 at the expense of Syria. During the year a change in Turkey's policy toward her southern neighbors could be discerned. While not wishing to join the Arab League, even supposing that she might be invited, Turkey sought closer relations with the Arab states. With Russia exerting pressure from the west, north and east, the Turks wanted at least to be sure of having friends to the south.

On March 29 Turkey and Iraq signed in Ankara a pact providing for "mutual assistance on the question of public order"—a step necessitated by Russian intrigues in Iran and among the Kurds. In mid-June President El Khoury and other high Lebanese dignitaries were welcomed in Ankara on an official visit. In opening Parliament on November 1, President Inonu declared that Turkey was anxious to cultivate friendly relations with the Arab countries.

In a reciprocal air agreement between Turkey and the United States, signed on February 12, Pan American Airways acquired traffic and landing rights at Istanbul and Ankara. On April 5 the United States battleship *Missouri* arrived at Istanbul bearing the body of Mehmet Ertogun, Turkish Ambassador who had died at Washington in November 1944.

On March 25 Under-Secretary of War Kenneth Royall revealed in Cairo that the United States was extending Turkey a credit of $10,000,000 so that she could purchase some of the surplus American military goods in the Middle East. Prime Minister Saracoglu told the Grand National Assembly on May 9 that the United States asked only $4,500,000 in order to clear up its lend-lease account with Turkey—a sum much less than anticipated. Earlier in the year Turkey was reported to have applied for a $500,000,000 loan from the Export-Import Bank.

Domestic Affairs. An aftermath of the December 4, 1945, demonstrations against two Leftist newspapers in Istanbul—*Tan* and *La Turquie*—(see YEAR BOOK for 1945, p. 612) was the arrest early in 1946 of four persons connected with these journals. On March 23 they were sentenced to three years' imprisonment for having printed articles harmful to the dignity of high officials. Despite the government's professed desire to see opposition parties created, it was hostile to groups that might be suspected of a Communist orientation. Finally, in December it suppressed the two so-called Socialist parties and jailed 44 of their members. This spelled the end of any openly organized Marxist movement.

In quite a different category was the Democratic Party organized by former Prime Minister Jelal Bayar. Its platform did not differ notably from the professed creed of the Republican People's Party, but insisted that the terms of the Constitution be honestly applied. The Democratic Party also objected to the arbitrary action of the government in holding the municipal elections in May, far ahead of the appointed time, thus depriving the Democrats of a chance to get properly organized. They therefore decided to boycott the voting in May. For this they were criticized as bringing discredit on the whole country by President Inonu, speaking at the People's Party Congress convened on May 10. At this congress, attended by 336 delegates, the Party voted in favor of the direct secret ballot and universal suffrage, and for an amendment to the law of association permitting the formation of professional and class organizations (including labor unions) without special authorization from the government, as had hitherto been the case.

The Democratic Party decided to participate in the national elections on July 21, and nominated candidates in over half the 465 constituencies. It complained that the authorities interfered with its organization activities, and even charged them with acts of terrorism. It also found the unsolicited support of the Moscow Radio to be of harm rather than help. The result of the voting, the first to take place under the secret, direct and universal ballot, was 395 seats won by the People's Party, 62 by the Democrats and 8 by independents. The Democrats won in the urban centers, such as Istanbul. Four days after the election the government put an end to the freedom of the press that had been enjoyed during the campaign, and in Istanbul it closed two newspapers.

Without warning the Saracoglu ministry resigned on August 4, to be succeeded by one headed by Recep Peker, former Minister of the Interior. Only a few of the men were holdovers, notably Hasan Saka, Minister of Foreign Affairs. On the following day Ismet Inonu was reëlected to serve his fourth term as President of the Republic, by a vote of 388 to 59 (for Marshal Fevzi Cakmak, candidate of the Democratic Party).

One of the most difficult problems confronting the Turkish government was inflation, product of wartime conditions. Especially hard hit by the high price level were the exporters, who found their foreign markets drying up. The government sought to ease their situation by granting a 40 percent subsidy on exports and by devaluing the Turkish pound 45 percent in relation to the British pound.

ROBERT GALE WOOLBERT.

TWENTIETH CENTURY FUND. A nonprofit organization for research and public education on economic questions. The Fund was founded in 1919 and endowed by the late Edward A. Filene, Boston merchant and philanthropist. Its entire income, administered as a public trust by a Board of Trustees, is devoted to its own research and educational activities. For each major investigation the Fund appoints a special research staff and an impartial committee of qualified persons who use the factual findings of the staff as a basis for recommendations on public policy. The Fund issues its reports in book form and supplements these with news releases, pamphlets, bulletins, study outlines, magazine articles, and other materials, including educational films and radio programs. Active contact work is maintained with organizations and educational institutions.

The Fund's activities for 1946–1947 carry forward a long-range program directed toward the problem of rebuilding our peacetime economic system. Work was completed during 1946 on a comprehensive report of *America's Needs and Resources, 1950 and 1960*, scheduled for publication early in 1947. The Fund also completed a survey of the foreign economic and investment position and policies of the United States and published the findings of its Committee on Foreign and Economic Policy, based on this survey. The final volume in a popular series of reports on *When the War Ends* was issued, summarizing the national and international scene from the viewpoint of returning veterans Nearing publication at the end of 1946 were the first report on the broad subject of international cartel and domestic monopoly problems and the findings of a survey of the relations between government and the electric power industry.

In 1947 the Fund will undertake a series of related projects on the major theme of implementing full employment, including an appraisal of measures to maintain full employment, an analysis of government credit policies, and a large-scale survey of the labor market and the national welfare. In addition the Fund's Labor Committee will review the role of the government in labor relations and report its recommendations on labor legislation and policy. The Fund also plans to study the economy of certain foreign countries in relation to United States investment policies and possibilities.

The officers of the Fund are: John H. Fahey, President; Henry S. Dennison, Chairman, Executive Committee; Morris E. Leeds, Treasurer; Evans Clark, Executive Director; and J. Frederic Dewhurst, Economist. Address: 330 West 42 Street, New York 18, New York.

UGANDA. A British protectorate in East Africa. Area, 93,981 square miles, including 13,680 square miles of water. Population (1944 estimate), 3,930,724, of whom 3,901,440 are African, 26,537 Asiatic and 2,747 European. Capital, Entebbe. Chief city, Kampala. The administration is in the hands of a governor assisted by an executive council and a legislative council. The province of Buganda is recognized as a native kingdom, and the king is assisted by three native ministers and a native assembly. In Bunyoro, Ankele and Toro purely native matters are handled by native assemblies. Uganda forms a customs union with Kenya and Tanganyika. A government educational scheme has supplemented the earlier mission schools, which still receive grants.

Production and Trade. Cotton, the chief product, occupied 1,072,495 acres in 1944–1945. Coffee, sugar, oil seeds, tin, hides, ivory and tobacco are also produced. The chief exports in 1944 were cotton (£5,043,413) and coffee (£1,045,430). Im-

ports were largely cotton textiles and other manufactures. Total exports (£7,531,862) were far ahead of imports for consumption (£2,813,380).

ULITHI ISLANDS. A former Japanese atoll in the western Carolines, occupied by United States armed forces, September 20–21, 1944. It comprises a ring of islands that surround a broad lagoon, and lies about 100 miles northeast of Yap. On November 6, 1946, the United States requested that the island be placed under United Nations trusteeship with the United States as administering authority.

UNION OF SOVIET SOCIALIST REPUBLICS (U.S.S.R.). A state occupying eastern Europe and central and northern Asia. Capital: Moscow.

Area and Population. The area as of Aug. 31, 1939, was about 8,200,000 square miles (73 percent in Asia and 27 percent in Europe). The census of Jan. 17, 1939, showed a population of 170,467,186 (88,802,205 females and 81,664,981 males), compared with 147,027,915 at the 1926 census. The urban population at the 1939 census was 55,909,908; rural, 124,557,278. Following the outbreak of World War II on Sept. 1, 1939, various territories (of Finland, Poland, and Rumania together with Estonia, Lithuania, and Latvia) were annexed to the Soviet Union, were occupied by German, Finnish, and Rumanian armed forces in 1941, and were freed from German occupation by Soviet armed forces and reincorporated into the Soviet Union in 1944.

The Polish territories were incorporated in the Ukrainian and Byelorussian Soviet Socialist Republics, Oct. 1–2, 1939. The Finnish provinces on Mar. 31, 1940, were joined to the Karelian S.S.R., which was then renamed the Karelo-Finnish S.S.R. and raised to the status of a constituent republic of the U.S.S.R. The major part of Bessarabia was merged with the Moldavian Autonomous S.S.R. on Aug. 2, 1940, to form the constituent Moldavian S.S.R. The remainder of Bessarabia, together with northern Bukovina, was incorporated in the Ukrainian S.S.R. Lithuania, Latvia, and Estonia were given the status of constituent republics upon annexation. The addition of these five new units raised the number of constituent republics of the Soviet Union from 11 to 16. These republics, with their capitals, areas, and populations, are listed in the accompanying table.

U.S.S.R. CONSTITUENT REPUBLICS

Republics	*Capital*	*Sq. mi.*	*Population*
Russian S.F.S.R.	Moscow	6,444,000	109,279,000
Ukrainian S.S.R.	Kiev	223,000	40,000,000
Byelorussian S.S.R.	Minsk	89,000	10,386,000
Azerbaijan S.S.R.	Baku	33,000	3,210,000
Georgian S.S.R.	Tbilisi	27,000	3,542,000
Armenian S.S.R.	Erivan	12,000	1,300,000
Turkmen S.S.R.	Ashkhabad	187,000	1,254,000
Uzbek S.S.R.	Tashkent	158,000	6,282,000
Tajik S.S.R.	Stalinabad	55,000	1,485,000
Kazakh S.S.R.	Alma-Ata	1,056,000	6,146,000
Kirghiz S.S.R.	Frunze	78,000	1,500,000
Karelo-Finnish S.S.R.	Petrozavodsk	76,000	500,000
Moldavian S.S.R.	Kishinev	13,000	2,200,000
Lithuanian S.S.R.	Vilna	24,000	2,880,000
Latvian S.S.R.	Riga	25,000	1,971,000
Estonian S.S.R.	Tallinn	18,000	1,131,000

The total area of the Soviet Union, based on the 16 constituent republics, was 8,518,000 square miles and the population was about 193,000,000. Ruthenia, also called Carpatho-Ukraine (4,886 sq. mi.; pop. 800,000) was ceded to the U.S.S.R. by Czechoslovakia on June 29, 1945, and was incorporated into the Ukrainian S.S.R. The former Japanese territories of southern Sakhalin (14,662 sq. mi.) and the Kurile Islands (3,944 sq. mi.) were made an integral part of the U.S.S.R. and nationalized (effective Sept. 20, 1945), according to a decree of the Supreme Soviet dated Feb. 2, 1946. This was in accordance with the terms of the Yalta agreement signed Feb. 11, 1945.

The populations of the 38 leading cities, including the capitals of the 16 constituent republics, are shown in the accompanying table.

POPULATIONS OF CITIES

City	*Population*	*City*	*Population*
Moscow	4,137,018	Voronezh	326,836
Leningrad	3,191,304	Yaroslavl	298,065
Kiev	846,293	Ivanovo	285,069
Kharkov	833,432	Archangel	281,091
Baku	809,347	Omsk	280,716
Gorky	644,116	Chelyabinsk	273,127
Odessa	604,223	Tula	272,403
Tashkent	585,005	Vilna	250,000
Tbilisi	519,175	Minsk	238,772
Rostov-on-Don	510,253	Alma-Ata	230,000
Dnepropetrovsk	500,662	Vladivostok	206,432
Stalino	462,395	Erivan	200,000
Stalingrad	445,476	Stalinsk	169,538
Sverdlovsk	425,544	Tallinn	147,000
Novosibirsk	405,589	Ashkhabad	126,600
Kazan	401,665	Kishinev	110,000
Kuibyshev	390,267	Frunze	93,000
Riga	385,000	Stalinabad	83,000
Saratov	375,860	Petrozavodsk	70,000

Education. In the academic year 1945, pupils attending elementary and secondary schools numbered about 32,000,000. There were about 1,200,000 students in technical schools and workers' faculties; about 1,800,000 children in nurseries and kindergartens, exclusive of 5,700,000 children placed in collective farm nurseries and kindergartens during harvest season; and 564,000 students in universities and colleges. The expenditure for education in 1945 was 28.6 billion rubles (20.4 billion rubles in 1944).

Production, etc. In Soviet Union transport and communications are conducted as Federal departments. Banking is centralized in a State Bank under government control. Distribution is socialized, with retail trade in the cities conducted mainly by local administrative bodies and in the villages by consumer cooperatives. Industrial production is carried on largely by State enterprises, operating under the general direction of appropriate commissariats (government departments). A State Planning Commission (Gosplan) plots the objectives for each year and for five-year periods. An Economic Council acts as a coordinative body. An organization in the Commissariat of State Control checks and supervises results.

State planning is an essential of Soviet economy and it is designed to direct and coordinate the employment of the energies and resources of the country for orderly development. However, the planning system goes beyond the economic field. It includes science, education, public health, and the extensive social services designed to safeguard the welfare and security of the citizenship. Beginning in 1939, the Soviet Government withheld publication of detailed information on industrial production, agriculture, and other phases of economic development. For prewar production figures for industry, mining, and agriculture, see YEAR BOOK for 1942, p. 698–99.

Foreign Trade. Foreign commerce is a governmental monopoly exercised by the Commissariat of Foreign Trade which maintains trading agencies abroad. Imports and exports are regulated in accordance with the country's system of planned economy. In 1938, the last year for which trade figures were published, imports totaled 1,422,882,000 rubles and exports 1,331,927,000 rubles, nominally equivalent to $261,757,000 and $250,751,000, respectively, in U.S. currency.

Finance. The budget of the U.S.S.R. is a summation of the budget of the Union and the budgets of the 16 constituent republics. For 1946 a budget in the amount of 319 billion rubles was approved. Expenditure included the following amounts: defense 72 billion rubles, economic development 102 billion rubles, social and cultural services 83 billion rubles, administration 6 billion rubles. In 1945 revenue was estimated at 307 billion rubles and expenditure 307 billion rubles.

The Soviet Government repudiated the State debt outstanding as of Jan. 28, 1918. On Jan. 1, 1933, the internal debt amounted to 10.088 billion rubles; on Aug. 1, 1940, it totaled 39.8 billion rubles. The nominal exchange rate of the ruble, for foreign trade exchange valuation purposes only, was 5.3 rubles to U.S. $1 (1 ruble = $0.1887).

Transportation. Railway mileage increased from 53,700 in 1937 to an estimated 62,000 miles on Jan. 1, 1941 (including lines in Russian-annexed territories) Highways extended 1,682,000 miles in 1940. Some 65,826 miles of inland waterways are navigable. There was a total of 100,000 miles in the civil air network in 1940. The merchant marine on July 1, 1939, comprised 716 vessels of 1,315,766 gross tons.

Government. Under the Constitution of Dec. 5, 1936, supreme political power is vested in the Supreme Soviet of the U.S.S.R., meeting twice a year, and elected for a period of four years by universal direct suffrage and with secret ballot. The Communist Party, however, is the only legal political party and all candidates for elective office must have its approval. The Supreme Soviet consists of two legislative chambers with equal rights —the Council of the Union, and the Council of Nationalities. The Council of the Union has 682 members (one for each 300,000 inhabitants) and the Council of Nationalities 657 members representing the constituent republics (25 from each), autonomous republics (11 from each), autonomous oblasts (5 from each), and national okrugs (1 from each). The two chambers in joint session elect a Presidium consisting of 42 members (including a president, 16 vice presidents (one vice president for each constituent republic of the Union), a secretary, and 24 others) with wide administrative powers between sessions of the Supreme Soviet, including ratification of treaties and declaration of a state of war. The Presidium supervises the work of the Council of the People's Commissars, selected by the Supreme Soviet, which acts as the executive and administrative organ of the state.

Joseph Stalin became general secretary of the Russian Communist Party in 1922 and after banishing Leon Trotsky in 1928 established a rigid but unofficial personal dictatorship through his control of Communist Party policies. He became a member of the Presidium in 1925 and on May 6, 1941, replaced Vyacheslav Molotov as President of the Council of People's Commissars, or Premier. Molotov became Vice Premier and Foreign Commissar. On July 1, 1941, after the German invasion began, the Presidium of the Supreme Soviet, the Central Committee of the Communist Party, and the Council of People's Commissars announced that all powers had been concentrated in the hands of a Committee for State Defense consisting of Stalin (chairman), Molotov (vice chairman), Marshal Klementy E. Voroshilov, L. P. Beria, Commissar for State Security; and Georgi M. Malenkov, general secretary of the Central Committee of the Communist Party. On July 20 Stalin assumed the post of Defense Commissar and assumed direct control over the Commissariat for State Security. The elections to the Supreme Soviet scheduled for 1941 and 1945 were postponed and the powers of the Supreme Soviet were extended by Presidential decree.

Events. The peoples of the Soviet Union in 1946 were primarily concerned with healing the wounds of war. For their leaders to admit this would have been a confession of weakness. They therefore preferred to emphasize Soviet strength and to do what they could to promote reconstruction at home and to maintain the bulwarks of Soviet power abroad. The central facts of life in U.S.S.R. were starkly simple: during hostilities the country suffered the total destruction of 1,700 cities and towns, 70,000 villages, 40,000 miles of railway track, and 6,000,000 buildings, including 31,000 factories, 43,000 libraries and 84,000 schools. According to Stalin's statement of March 13, no less than 7,000,000 Soviet citizens lost their lives in battle. Civilian deaths due to blockade, malnutrition, disease, forced labor, massacre, Nazi extermination camps, and other causes attributable to war probably numbered at least another 8,000,000.

The U.S.S.R. thus bore human and material losses ten times greater than the total war losses of the United States, Britain, France, and all the other Western United Nations combined. The national impoverishment and insecurity resulting from this fact were not unrelated to the anxiety, suspicion and truculence exhibited by Soviet leaders in dealing with other Powers.

Election of February 10. On the second Sunday of February, for the first time since December of 1937, Soviet voters went to the polls to elect members of the two chambers of the federal Supreme Soviet (see YEAR BOOK for 1945, p. 617). The nominating system followed the pattern established nine years previously. Many were called, but few were chosen. Following final withdrawals of candidates, only one aspirant for each post appeared on the ballots. On election eve, Stalin broadcast an appeal for unanimity, arguing that the achievements of Soviet economy in peace and war demonstrated the superiority of the Soviet system and offered high hopes for the future. The salient features of the election were as shown in the accompanying table.

Eligible Voters	101,717,686	
Votes Cast	101,450,936	(98%
Vote for the "Bloc of Party and Non-Party People"		99%
Deputies Elected to Soviet of the Union		682
Deputies Elected to Soviet of Nationalities		657
Total C P. members in both chambers		1,085
Total Non-Party Deputies		254
Women Elected		277

The Vocation of Leadership. Members and candidates of the Communist Party numbered 6,000,000 early in 1946. This figure, representing an all-time high, reflected extensive recruitment of new members during the war years. Two-thirds of the total comprised members and candidates admitted during the preceding five years. Almost one-fifth were under 25 years of age and almost two-thirds were under 35. Despite the rules of 1939 calling for Party Congresses at least once every three years and Party Conferences annually, no Congress or Conference was held in 1946, perhaps because the Party leaders judged the newer members to be insufficiently trained in doctrine and discipline. The Central Committee therefore filled its own vacancies by appointment. At its March meeting it increased the size of the Political Bureau by adding L. P. Beria and G. M. Malenkov as members and N. A. Bulganin and A. N. Kosygin as alternates. The other members were Stalin, Molotov, Zhdanov,

Kalinin, Mikoyan, Krushchev, Andreyev, Voroshilov, and Kaganovich, with Voznessensky and Shvernik as alternates. Five Secretaries of the Central Committee were named: Stalin, Molotov, Zhdanov, V. V. Kuznetsov and G. M. Popov.

Prime Minister and Generalissimo Joseph V. Stalin remained at the helm of Party and State. He reached the age of 67 on December 21. His absence from Moscow during the celebration of November 7, 29th anniversary of the Bolshevik Revolution, and his sojourn on the Black Sea coast during part of the autumn (as in 1945) gave rise to the usual crop of hopeful rumors abroad of his illness and impending death—all of which, as usual, were much exaggerated.

A number of well-known figures of the past departed from the scene. Vladimir P. Potemkin, distinguished diplomat, former Vice-Commissar for Foreign Affairs, and Commissar for Education of the R.S.F.S R., died on February 23. On March 19 the venerable "Uncle Mikhail" Kalinin, afflicted with failing eyesight, resigned as chairman of the Presidium of the Supreme Soviet. He died on June 2 at the age of 70. In his honor Koenigsberg was renamed Kaliningrad. Death also called for Dr. Alexander A. Bogomolets (July 19) and for the Chief Surgeon of the Red Army, Lt. Gen. Nikolai N. Burdenko (November 12).

The Process of Government. The new Supreme Soviet met on March 12. The Soviet of the Union elected Zhdanov as its chairman, with the chairmanship of the Soviet of Nationalities going to V. V. Kuznetsov, head of the trade unions. On March 14 the Soviet of Peoples' Commissars and its chairman, Stalin, resigned and handed over their powers to the Supreme Soviet, which unanimously re-elected them to their posts, changing their title, however (on the motion of Nikolai Shvernik), to "Ministers" and extending this shift of nomenclature to the Union and Autonomous Republics. Foreign Minister Molotov was re-elected as Vice-Chairman of the Council of Ministers. Seven other Deputy Prime Ministers were named to the Presidium: Beria, Andreyev, Mikoyan, Kosygin, Voznessensky, Voroshilov and Kaganovich. Early in April Shvernik was elected to Kalinin's post: Chairman of the Presidium of the Supreme Soviet. Malenkov became a Deputy Prime Minister on October 22.

The Supreme Soviet convened again in June and September. The new budget, presented in mid-October by Finance Minister A. G Zverev (and termed by *Pravda* "the new Five Year Plan in action"), provided for total expenditures of 319,269,000,000 rubles, as compared with 298,590,000,000 for 1945. Expenditures for National Economy were increased from 74 to 102 billion rubles, and for social and cultural purposes from 62 to 83 billions, while the cost of the armed forces was reduced from 128 to 72 billions. Income was estimated at 335 billion rubles, of which 201 billion represented receipts from the turnover tax, while 16 billions were anticipated from the profit tax on industry, 25.5 billions from other taxes, and almost the same amount from loans and savings-bank deposits.

In the armed forces and foreign service a number of noteworthy changes of personnel occurred. On March 22 a decree of the Council of Ministers unified the Soviet fighting forces under Stalin as Minister of Armed Forces and Supreme Commander. General Bulganin was named Vice-Minister, with Marshal Alexander M. Vasilevsky becoming subordinate Vice-Minister and Chief of Staff. The other Vice-Ministers appointed were Col. Gen. Konstantin A. Vershinin (Air), Adm. N. G. Kuznetsov (Navy), Marshal Georgi K. Zhukov (Army) and Gen. Andrei V. Khruliev (Rear). At the same time Andrei Y. Vishinsky, V. G. Dekanozov, Solomon A. Lozovsky and Maxim Litvinov were named Deputy Ministers of Foreign Affairs. Lozovsky resigned this post in the autumn to become Minister of Information. On April 10 Gen. Vassily D. Sokolovsky succeeded Zhukov as Soviet member of the Allied Control Council in Berlin. On July 18 Zhukov was reported to have been appointed to the command of the Odessa military district. On November 18 Gen. Ivan Konev succeeded Zhukov as Commander in chief of the Army. Litvinov, 70 years of age, was retired as Deputy Foreign Minister on August 24. Andrei Gromyko was promoted to this post at the end of December. Foreign efforts to discover subtle political meanings in these changes remained in the realm of speculation.

Disciplining Backsliders. A dominant *motif* of Soviet public life during 1946 was the necessity of chastising the dishonest, demoting or re-educating the inefficient, and recalling to all intellectuals and artists their prime duty of serving the cause of socialism as interpreted by the Party leadership. The stresses of war and reconversion led to a relaxation of discipline which in turn provoked a new wave of "self-criticism." On July 7 Sergei Eisenstein's film, *Ivan the Terrible*, was denied distribution as being "anti-historical and anti-artistic," since it depicted Ivan merely as a maniac and scoundrel and not as a statesman *Culture and Life*, journal of the Agitation and Propaganda Committee of the Central Committee of the Party, announced on September 1 a sweeping purge of "bourgeois" and "anti-Soviet" plays and films, both foreign and domestic. In the same publication Eisenstein confessed his faults and agreed that "everything we do must be subordinated to the struggle against the corruptive ideology of the bourgeois world."

Soviet jazz music was assailed by high-placed critics for "decadence," "vulgarity" and "ideological scantiness." On September 8, on the order of the Central Committee, two Leningrad writers, Anna Akhmatova and Mikhail Zoschenko, were expelled from the Union of Soviet Writers for alleged addiction to "alien ideologies," and the President of the Union, Nikolai Tikhonov, was dismissed and replaced by a governing board composed of Tikhonov, A. Fadeyev, Konstantin Simonov, V. Vishnevsky, and Alexander Korneichuk. Future membership in the Union was to be limited to writers who "stand on a platform of Soviet power and participate in socialist construction." Zhdanov warned writers to shun and expose bourgeois culture, with its penchant for gangsters and sex themes, to refute attacks on Soviet culture, and to dedicate themselves to creating an advanced Soviet literature. Simonov wrote in November that "playwrights must be politicians," devoted to an "active and relentless" offensive against ideological enemies.

This campaign of intolerance and dynamism in the arts was paralleled by an intensive drive against those in government, industry, and agriculture who fell short of the standards of probity, competence, and socialist enthusiasm insisted upon by the Kremlin. On June 26 the Ministry of State Control announced, with circumstantial details, widespread dismissals and fines for factory directors, engineers, and accountants who had falsified production figures, distributed bonuses illegally and misappropriated funds. In mid-summer several Party officials in the Crimea were expelled for indifference to the

needs of new settlers, brought in to replace the deported Tartars who had collaborated with the German invaders. Krushchev announced on August 23 that over half of the Party leaders and local government executives in the Ukraine had been replaced in the course of 18 months. Symptoms of "bourgeoise nationalism" in the Ukraine evoked vigorous condemnation.

On September 20 a decree issued jointly by the Council of Ministers and the Party's Central Committee condemned thefts of collective farm property, "swollen administrative staffs" on many collectives, undemocratic methods of management, and other violations of collective farm statutes. Expulsions and prosecutions for graft ensued, particularly in the Ukraine. In October two officials of the tailoring cooperative of the Moscow oblast were sentenced to be shot for wholesale stealing and reselling of cloth, with eight others given prison sentences. Later in the month a new federal Council for Collective Farm Affairs, headed by Andreyev, was charged with defending farmers against abuses by local authorities and increasing discipline and productivity on the collectives. I. M Slatin, Vice-Minister for Industrial Crops, was dismissed on October 30 for overloading his staff with excess workers. By the end of the year a nationwide campaign was in full swing against swindlers, thieves, parasites, and those charged with hoarding labor power and impeding the transfer of personnel from bureaucratic posts to industry.

War Criminals. In late January, 15 Germans were brought to trial in Kiev, charged with participating in the burning of 647,000 houses, the enslavement of 2,000,000 persons and the murder of 4,000,000 Ukrainian civilians. The testimony of witnesses and the confessions of the accused revealed that the Nazi occupants of the Ukraine had pursued a systematic policy of slaughtering Jews, killing children, murdering scores of thousands of war prisoners, torturing and burning alive civilian suspects, and promoting famine and pestilence in a well-organized program of extermination. On July 20 Soviet authorities in Berlin informed U.S. Army headquarters that Fred W. Kaltenbach, missing American traitor who had broadcast on the Nazi radio, had died in October, 1945, in a Soviet detention camp. The Nuremberg verdicts on the major Nazi war criminals were hailed by the Soviet press and public with general satisfaction, tempered by regrets at the acquittal of Schacht, Papen, and Fritzsche and the life sentence for Hess.

The Nuremberg trial produced several alleged revelations regarding Nazi-Soviet relations in 1939–1941. Ribbentrop's secretary, Margaret Blank, testified on March 28 that Molotov and Ribbentrop had signed a secret territorial agreement in Moscow in August, 1939. On March 19, 1946, the *New York Times* published an article from Frankfort-on-Main by L. S. B. Shapiro, asserting that captured German documents showed that Molotov had made a secret visit to Berlin in May, 1941, to make a vain offer of a full military alliance in return for Soviet control of the Dardanelles, a free hand in Iran and Iraq, and enough of Saudi Arabia to insure control of the Persian Gulf and the Gulf of Aden. This tale was confirmed from no other source and appears highly implausible. Such stories were used throughout the year in the United States as "evidence" of a long-term Soviet program of aggrandizement in the Near and Middle East. Most of them were comparable in veracity to the *New York Times'* sensational dispatches of the spring reporting extensive Soviet troop movements in Iran, Bulgaria, and Germany.

Soviet spokesmen continued to protest at the Anglo-American policy of refusing to deliver up displaced persons of Eastern European origin in German and Austrian camps. These included many of the renegade troops of Lt. Gen. Andrei A. Vlassov's Nazi-supported "Russian Army of Liberation" which, on German orders, committed atrocities in Yugoslavia and southern France in 1943–44. On March 1 it was reported from London that a secret military clause in the Yalta accords obligated the United States and Britain to turn over to the Russians, as deserters, all captured East Europeans who had actually served in the Axis armies. Moscow contended that even this limited promise was not being fulfilled and that Anglo-American policy was one of protecting Fascists, Quislings, and traitors.

Vlassov himself had fallen into American hands in Czechoslovakia and had been surrendered to Soviet authorities. On August 2 the Moscow radio reported that he and ten of his aides had been hanged after being found guilty of treason by the Supreme Court. In a public trial before the same tribunal, Ataman Gregory Semenov, the successor of Kolchak as White Guard leader in Siberia in 1920 (and captured by the Red Army in Manchuria in 1945), testified that he had plotted to kill Lenin, accepted Japanese money, trained anti-Soviet spies and terrorists, and organized massacres in the final phases of the war of the intervention. He and five associates were executed on August 31.

Demobilization. The process of demobilization begun in 1945 (see YEAR BOOK for 1945, p. 616) continued during 1946. The Danish island of Bornholm was evacuated on April 5. By June, Soviet forces in Germany, Austria, Hungary, Rumania, and Bulgaria had been sharply reduced, with a total of 10,000,000 Soviet soldiers returned to civilian life. Thirteen senior age groups were released under the law of June 23, 1945, and ten more on September 9. A third demobilization decree of March 20, 1946 was followed by a fourth on October 22. Churchill charged in Commons on October 24 that there were 200 Soviet divisions on a war footing in occupied Europe. On October 28, in answer to questions put from London by Hugh Baillie, President of the United Press, Stalin described Churchill as an "incendiary of a new war" and asserted that there were only 60 Soviet divisions in the West, most of them not in full strength, and that only 40 would remain by January. On November 15, Marshal Rokossovsky signed an agreement with Marshal Rola-Zymierski for the reduction of Soviet troops in Poland.

Although demobilization was speeded as a means of meeting the grave labor shortage afflicting Soviet economy, the men of the Kremlin had no thought of reducing Soviet military power to a point which might jeopardize national security. On February 23, 28th anniversary of the founding of the Red Army (officially renamed the "Soviet Army" on September 20), Stalin enjoined it "not only to keep up with progress in the art of war, but to advance it." His Order of the Day of May 1 declared: "Returning to peaceful work, we must constantly be alert to look after the armed forces in defense of our country."

On June 19, a new disciplinary code was announced. It was designed to contribute "to the still greater military might of the Soviet State" and called for scrupulous regard to military etiquette; vigilance against thefts, wastes, and "leaks" of military secrets; and emphasis on high standards of conduct among officers, to be enforced through courts of honor. *Red Star*, organ of the Army, as-

serted on June 22 that the Soviet forces were "the mightiest and toughest of contemporary armies." Historian Eugene Tarlé warned against incipient Fascism in the United States and schemes of a *Tax Americana*. The Soviet press continued to stress military technique. Plans for a greater Soviet Navy were pressed. On Aviation Day (August 18) the new models displayed in the Moscow demonstration included jet-propelled and rocket-propelled fighter planes. By the end of the year it was estimated, without official confirmation, that the armed forces had been cut to less than 6,000,000 and would be further reduced to a peacetime norm of 3,000,000.

Problems of Agriculture. In the Soviet Union, to an even greater degree than in Britain, France and the lands of the vanquished, daily life for the masses was hard and austere beyond American imagination. On February 9 Stalin promised that "in the very near future the rationing system will be abolished." But on August 28 the Moscow radio announced that "in view of drought in a number of regions and the diminution of State food reserves," rationing would have to be continued into 1947. One source of difficulty, apart from the weather, was that collective farmers during the war had found, in the free market sales of produce at high prices, an incentive for extending their personal holdings for garden purposes and were devoting more time to them than to collective agriculture. The wholesale destruction of tractors, tools and livestock in the devastated areas, coupled with the labor shortage, contributed to the scarcity of marketable foodstuffs.

In order to relieve want in the cities, substantial reductions of rationed food prices were ordered on February 25 On March 20 William L. Clayton, addressing the UNRRA Council in Atlantic City, opined that recent reports of Soviet willingness to sell 400,000 tons of wheat and 100,000 tons of barley to France indicated that the U.S.S.R. might soon be able to join other suppliers in meeting UNRRA needs. But on June 25 Marshall MacDuffie, chief of the UNRRA mission to the Ukraine, reported that drought had damaged crops. The Ukraine remained a recipient, not a supplier, of UNRRA and secured $189,000,000 worth of foreign relief by the end of the year Federal Minister of Agriculture, I. A. Benediktov, early in August predicted a bumper crop But by December the Ukraine, the Moldavian and Kazak Republics, and the R.S.F.S.R. had not completed their scheduled grain deliveries

Aside from disciplinary measures already noted, the authorities sought to meet the farm problem by altering price levels. On September 16 lowered prices, representing the third cut of the year, went into effect in the "commercial stores," where goods were sold without ration cards. At the same time prices of rationed foods were raised: bread from 1 to 3.40 rubles, butter from 24 to 60, sugar from 5 to 60, meat from 14 to 34, etc. The effect was to increase living costs for urban workers, encourage larger production by the collectives, and reduce incentives to private cultivators whose price standards in the peasant markets were set by the commercial stores. A decree of the Council of Ministers, November 9, contemplated a reorganization and expansion of the consumers' and producers' cooperatives in order to increase the volume of produce and merchandise and to provide "healthy competition" for the commercial stores. The net results of these and other measures could not at once be estimated accurately, but they promised a gradual alleviation of the chronic poverty in consumers' goods which had been aggravated by the appalling ruin and waste of war.

Industry. When asked by Hugh Baillie (October 28): "How long will it require to rebuild the devastated areas of Western Russia?" Stalin replied "Six or seven years, if not more." It had been hoped earlier that the task might be completed by 1950 and that industrial output at the end of the Fourth Five Year Plan might be 50 percent greater than in 1940. The Plan was finally adopted by the Supreme Soviet on March 18. Among major proposed achievements, it contemplated the following increases of production by 1950, as compared to 1940 in millions of tons, with tentative estimates for 1960 shown in parentheses in the accompanying table.

Pig-iron	from 15 to 19 (60)
Steel	from 18 to 25 (50)
Coal	from 166 to 250 (500)
Oil	from 31 to 35 (60)

Owing to the complete destruction of at least one-third of Soviet industrial facilities in the invaded regions, the actual production of pig-iron in 1946 was only ca. 11 million tons and of steel ca. 15 million tons. Even should the high goals of the Plan be attained, Soviet production in heavy industry, despite a far greater territory and population, would still be far below American capacity. The United States produced 31.4 million tons of pig-iron in 1913 and 55 million tons in 1944; 32 of steel in 1913 and 80 in 1944; 517 of coal in 1913 and 616 in 1944; and 34 of oil in 1913 and 206 in 1945.

Soviet reconstruction and further industrialization were severely impeded by lack of labor power, particularly as to skilled workers, by high costs and inefficiency, and by general backwardness in the fields of industrial construction, farm machinery, timber, chemicals, consumers' goods and coal mining At the beginning of the year the eight-hour day in industry had been restored and allowances of rationed foodstuffs were considerably increased. The new Plan contemplated the technical training of 7,700,000 new workers by 1950 and the acquisition of new skills by an additional 13,900,000. *Trud*, organ of the trade unions, reported on April 6 one of the rare instances of strikes in the U.S.S.R.: because of the failure of directors in an unidentified plant to provide better working conditions, the Electrical Workers Union had ordered a temporary work stoppage. In the face of staggering difficulties, appreciable progress was made in 1946 in restoring production. Examples: the Dnieper Dam resumed power production in December. Output of food and consumers' goods finally exceeded slightly the 1940 levels. Daily freight car loadings increased by 6,000 cars a day from August 1, 1945 to August 1, 1946. The coal mines and steel plants of the Don Basin, completely devastated during the war and reduced to half of its former population, reached almost half of their pre-war output.

Intensive efforts were made to recruit new industrial workers, to attract "white collar" employees to farms and factories, to combat incompetence and graft, and to remedy the deplorable state of the housing and food industries. A reconstruction loan of 20 billion rubles was floated on May 3, with the 20-year bonds paying no interest but offering lottery prizes for one-third of the bonds issued, ranging up to 50,000 rubles on 100 ruble bonds. *Pravda* warned on October 19 that the success of the new budget would depend on the liquidation of industrial inefficiency and the attainment

of production goals. "Self-criticism" and public attacks on bureaucratic bunglers in industry lent sharpness to the campaign for greater output. By American standards, poverty was the lot of the mass of Soviet citizens and would remain their lot for years to come. But there was no fear of boom-and-bust, nor of prospective stagnation and unemployment. The vision of ultimate plenty moved a weary but confident people to new efforts which promised fulfillment of the Plan.

Church Affairs. By the autumn of 1946 there were 22,000 Orthodox congregations actively functioning in the U.S.S.R., one Patriarch (Alexei), seven Metropolians, 75 Archbishops and Bishops, 10 seminaries, 3 theological academies and 83 monasteries. An extensive three-week tour of the Soviet Union was made during the summer by an American delegation which included Dr. Ralph W. Sockman, Minister of Christ Church (Baptist) of New York; Rev. Louie D. Newton, President of the Southern Baptist Convention; Mrs LaFell Dickenson, President of the General Federation of Women's Clubs; Peter Grimm, President of the New York State Chamber of Commerce; Louis Levine; Dr. Edward L. Young; and Fred Myers, now Director of the American-Russian Institute. After visiting many churches and preaching in some, Drs. Sockman and Newton reported that church membership was growing and that "as far as we could see, no obstacles are interposed by the Soviet Government which would prevent the free growth of religious institutions or the right of individuals to pursue their faith and worship as they please."

On March 17 Radio Moscow announced that the Uniate Church of the Western Ukraines had decided on the 8th, meeting in assembly in Lvov, to break its union with Rome (1596) and rejoin the Russian Orthodox Church. This step followed Vatican condemnation of Soviet "persecution" of Catholics in the Ukraine. Papal spokesmen declared that the decision was the work of renegade priests, that the legitimate Bishops had been arrested, and that Patriarch Alexei, "elected by dissident Bishops," had backed the move. Kremlin-Vatican relations, already embittered, went from bad to worse. *Izvestia* (January 27) declared that the Holy See, in naming 32 new Cardinals, was seeking to spread "reaction" throughout the world. Cardinal Spellman was accused of befriending Franco. A month later *Pravda* charged that Pope Pius XII had been pro-Nazi during the war and had reached an agreement with Hitler under which Roman priests followed the Wehrmacht, the Gestapo, and the S. S. into Russia to convert the population to Catholicism. In various articles and speeches during the year Cardinal Spellman echoed the Vatican in denouncing Communism. Between the Papal Hierarchy and the "Third Rome" no peace was achieved nor was any in prospect.

Foreign Policy. In world affairs Soviet leaders were primarily concerned with consolidating the fruits of victory and counteracting what they regarded as pressures and threats from London and Washington. The tortuous negotiations and recurrent crises which marked the meetings of General Assembly, Security Council, Council of Foreign Ministers, and Paris Peace Conference cannot here be reviewed. Suffice it to say that from the perspective of Moscow nothing vital to Soviet security was surrendered during the year, despite many concessions to and compromises with the Western Powers. Rumors of war, loudly voiced during the winter and spring, gave way in fall to talk of peace and new hopes of concord among the Big Three.

Churchill's speech in Fulton, Missouri (March 5) was denounced by *Pravda* on March 11 as a threat of aggression. Two days later Stalin called it "a dangerous act" by "a firebrand of war." Should he and his friends succeed "in organizing a new military expedition against Eastern Europe," then "one man confidently says that they will be beaten, just as they were beaten 26 years ago." In his May Day statement, Stalin celebrated victory over Fascism, espoused peace and warned against "the intrigues of international reaction, which is hatching plans of a new war." The painful elaboration of draft treaties in Paris during the spring alleviated tension. The crucial issue of Trieste was compromised. The settlements finally concluded for Italy, Finland, Hungary, Rumania, and Bulgaria fixed reparations and frontiers and provided for evacuation of Allied troops, but did not alter the fact of Soviet hegemony in the Danubian and Balkan lands.

Stalin wrote to Alexander Werth on September 24 that he did not believe in "a real danger of a new war," nor in the possibilty of a "capitalist encirclement" of the Soviet Union by ruling circles in Britain and the United States "even if they wanted to do this, which, however, we cannot affirm." He declared that all accusations that Western European Communist parties were following policies dictated by Moscow were "absurd and borrowed from the bankrupt arsenal of Hitler and Goebbels." "I do not doubt that the possibilities of peaceful collaboration (with the Western Powers) will not only not decrease but can even increase. 'Communism in one country' is fully possible, especially in such a country as the Soviet Union." On October 28 Stalin cabled Hugh Baillie that he did not agree with Byrnes that there was growing tension between the U.S.S.R. and the United States of America; that the major threat to world peace was "the incendiaries of a new war, foremost Churchill and those who think like him"; that Russia considered the Western frontiers of Poland as permanent; and that the political and economic unity of Germany should be restored.

Soviet commercial policy in Central and Eastern Europe led to repeated clashes with Washington, which championed multilateralism in contrast to Moscow's preference for bilateral trade agreements. American efforts to minimize Soviet influence in the economies of Poland, Czechoslovakia, Hungary, Rumania, Yugoslavia, and Bulgaria were not conspicuously successful. In July negotiations were opened for a Swedish-Soviet accord by which Stockholm would extend credits of a billion kronor for Soviet purchases of Swedish electrical equipment, machinery, and other goods over a period of five years. Widespread reports of "ghost rockets" flying over Sweden during the discussion, presumably indicating Soviet pressure on Stockholm, were dismissed on September 16 by Dr. Carl Siegbahn, Sweden's leading physicist, as "hysteria" aroused by meteorites. The credit agreement was signed in Moscow on October 7 on terms of 15 years at 3 percent. Both Moscow and Stockholm rejected American protests.

The major issue of 1947 between Muscovy and the West, i.e. the future of Germany, was clearly posed in 1946. Molotov told the Council of Foreign Ministers on July 10 that he repudiated all thought of any dismemberment or deindustrialization, that he favored the economic and political unification of the Reich, but that he opposed a federal structure and felt that no treaty could be completed until it was clear that a new democratic German Government would "extirpate the remnants of Fascism" and insure fulfillment of obligations toward the Al-

lies, including reparations deliveries. In late July Molotov expressed disapproval of Anglo-American plans for the economic merger of the British and American zones, contending that this represented a "back-stairs agreement" aiming at "a revival of the economic might of the aggressive forces of German imperialism" (the Moscow radio, August 5).

In reply to Byrnes' Stuttgart address of September 6, Molotov insisted that Germany's frontier on the Oder and Niesse was fixed and final. Stalin on September 24 warned against all efforts by West or East to use Germany against the other. *Pravda* (on October 6) echoed the Foreign Ministry in rejecting Byrnes' plan for a 40-year Four Power Pact guaranteeing German demilitarization, contending that this had already been agreed upon at Potsdam and only remained to be carried out. In December, however, it was agreed that the Council of Foreign Ministers should meet in Moscow on March 10, 1947 to consider treaties with Austria and Germany.

The Far East. In Asia, as in Europe, Soviet policy was motivated, in the Muscovite view, by considerations of military security, and was widely interpretative in the West as indicative of a program of aggrandizement. With the Japanese threat removed, Moscow was determined that it should neither be revived nor replaced by new dangers arising out of American support of anti-Soviet elements in Japan, Korea, and China. A *Tass* dispatch of January 19 from Heijo spoke of "the provocative activity of the counterfeit government of Kim Koo and Syngman Rhee" and accused United States authorities in southern Korea of permitting anti-Soviet propaganda and "inspiring reactionary demonstrations against the decisions of the Moscow Conference." On January 23 Gen. MacArthur's headquarters rebuked *Tass* and charged "a definite program to discredit" the Supreme Commander and force changes in occupation policy. Gromyko represented the U.S.S.R. on the new Far Eastern Commission which met for the first time in Washington on February 20, after returning from Tokyo. No open clashes were reported in the course of its deliberations, but the Soviet press and Soviet officials in Japan remained consistently critical of American policy, holding that it was directed against liberal forces and favored elements identified with feudalism, monopoly capitalism, and militarism.

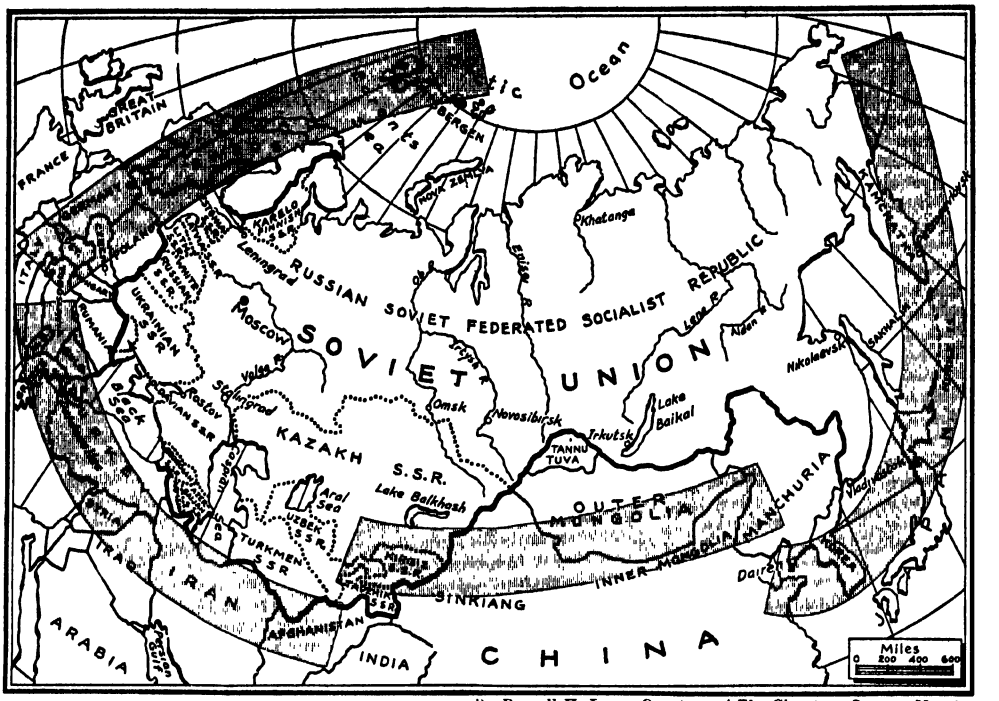
On January 29 Byrnes confirmed reports of September, 1945, that Roosevelt and Churchill at Yalta had signed a secret accord with Stalin whereby they agreed that, in return for Soviet entry into the war against Japan "in two or three months after Germany has surrendered" and the conclusion of a soviet-Chinese treaty of alliance to aid in "liberating China from the Japanese yoke," they would assent to preservation of the *status quo* in Outer Mongolia, restoration to Russia of Southern Sakhalin and the Kurile Islands, joint Sino-Soviet operation of the Manchurian railway, internationalization of Dairen, and conversion of Port Arthur into a Soviet naval base (text in *New York Times,* February 11, 1946). Despite reports abroad to the contrary, the first American correspondents to fly over the Kuriles in mid-April found them to be unfortified. Southern Sakhalin was integrated into the Soviet economy during the year and settled by Russian immigrants from Siberia. Under an American-Soviet agreement of November, some 25,000 Japanese citizens in Sakhalin, Korea, Manchuria and Siberia were permitted to move to Japan. Gradual repatriation of war prisoners in Soviet hands, long insisted upon by the United States under the Potsdam agreements, was also under way by autumn.

Soviet policy in Manchuria meanwhile evoked protests from Nanking and Washington. Soviet troops were originally scheduled to withdraw by December 3, 1945. Several extensions were agreed to, in part because of Kuomintang fears that Nationalist forces, despite United States transport by sea and air, would be unable to take over in advance of Chinese Communist forces. Moscow pressed for additional economic concessions in Manchuria while Soviet troops made wholesale removals of machinery and other supplies described as "war booty" and reparations. On February 9 (text in *New York Times* on March 6) Byrnes informed the U.S.S.R. and China that the United States took the view that joint Sino-Soviet control of Manchurian enterprises was to be limited to railways, that any extention of such control would be "contrary to the principle of the Open Door and would constitute clear discrimination against Americans," and that no disposition of Japanese assets should be made until an inter-allied reparations commission for Japan should be established to work out a final allocation among the various claimants.

Maj. Gen. Andrei Kovtoun-Stankevitch asserted in Mukden on February 23 that removals had been sanctioned by a Big Three accord. Byrnes denied knowledge of any such agreement. Moscow rejected American and British protests at the continued presence of Soviet forces in Manchuria on the ground that China had requested that departure be delayed. But on March 22, in reply to a Chinese request of March 6 for withdrawal, Moscow informed Chungking that all its troops would be out by the end of April.

This promise was kept, save for Soviet garrisons in Dairen and Port Arthur. But a large proportion of the Japanese industrial establishments had been dismantled. Most of Manchuria, moreover, passed into the hands of Chinese Communist forces. Aside from this circumstance, Moscow gave no material aid to Yenan, even though the United States extended large-scale assistance to the recognized Kuomintang Government in the civil war which Gen. Marshall as mediator was unable to halt. *Pravda* charged on July 7 that the United States was violating the Moscow Conference agreement on non-interference in China's internal affairs and was "pouring oil into the fire." Other Soviet publicists held that the United States was responsible for the Chinese civil war and that the Kremlin was not indifferent to the course of events. When asked by Alexander Werth on September 24, "Do you believe that the quickest withdrawal of all American forces in China is vitally necessary for the future of peace?" Stalin replied: "Yes, I do." American intervention continued, but the inability of Chiang Kai-shek's forces to win any decisive victory over their foes during the year contributed to the Soviet decision to refrain from counter-intervention.

The Near East. The diplomatic duel between the Soviet Union and the Atlantic powers eventuated in a situation in the Near Eastern arena which was, on the whole, less favorable to Moscow at the close of the year than it had been in January. When Iran on January 19 charged the U.S S.R. before the Security Council with interfering in its internal affairs by refusing to permit Teheran troops to suppress the autonomous regime in Azerbaijan, Gromyko and Manuilsky retaliated by charging that British troops in Greece and Java



By Russell H. Lenz, Courtesy of The Christian Science Monitor

SHADED ARCS SHOW APPROXIMATE LINE OF RUSSIA'S DEFENSES

were a threat to peace. The Council resolution of January 30 kept the Iranian dispute on the agenda. When Soviet forces remained in Northern Iran beyond the deadline of March 2, the United States informed Moscow (March 6) that it regarded this act as a breach of assurances and hoped for immediate evacuation. The prolonged and embittered controversy over Iran, which began with the Council meeting of March 25, continued through the spring, with Iran's complaints still on the agenda at the end of December.

Moscow contended that the issue was one to be settled by bilateral negotiations, that the Security Council could not properly consider it, particularly after Iran had requested its removal from the agenda, and that the controversy had in fact been settled by an agreement of March 24 under which all Soviet troops would be withdrawn. The latter development was completed by May 6. The *quid pro quo* was a Soviet-Iranian accord, embodied in an exchange of notes between Premier Ghavam and Ambassador Sadchikov on April 8. It provided for the formation of an Iranian-Soviet oil company to explore and develop the petroleum resources of Northern Iran over a period of 50 years, with the allocation of the shares between the U.S.S.R. and Iran to be 51–49 for the first 25 years and 50–50 thereafter. Teheran agreed not to grant oil rights in the area to others. The accord was to be implemented after the election of a new Iranian parliament and in any case not later than seven months after March 24, 1946.

The effect of this settlement would have been to give the U.S.S.R. a position of prospective equality with Britain and the United States in the development of Iranian oil reserves. The Anglo-Iranian Oil Company and Royal Dutch Shell already possessed exclusive rights in Central and Southern Iran. Standard of New Jersey and Socony Vacuum obtained rights of participation in the British monopoly in December. But the seven months elapsed without action by Teheran. In October Ghavam dropped from his Cabinet the adherents of the pro-Soviet Tudeh party. In November, with American encouragement and over the objection of Ambassador Sadchikov, he decided to send troops into Azerbaijan for the purpose of supervising elections. On December 11 the pro-Soviet autonomous regime in Azerbaijan was suppressed. By year's end it appeared that the impending elections might be followed by the repudiation of the oil agreement of April and by unchallenged domination of the kingdom by Anglo-American interests. Whether Moscow would risk a new clash with London and Washington by contesting this outcome remained to be seen.

With Afghanistan, Moscow concluded a border agreement on June 13. In return for giving up all claim to the Kushka district in southern Turkmenistan, Kabul received water rights on the Kushka River. Certain circles in London interpreted the accord as a Soviet encroachment into a British sphere of influence. As regards the Arab portions of the Moslem world, Soviet spokesmen repeatedly criticized British and American policy and urged that Palestine be dealt with as a problem for the United Nations. Rumors of an anti-British liaison between the Kremlin and the Arab League came to nothing, since the greatest long-run threat to the feudal élites of Islam came not from Zionism nor from Britain but from the example of the U.S.S.R., where millions of Moslem peasants had been emancipated from the feudal exploitation, illiteracy, disease, and subhuman misery afflicting most of their coreligionists south of the Soviet frontier.

Continued Soviet efforts to bring about a change in the status of the Straits remained unsuccessful. The April visit of the U.S.S. *Missouri* to Istanbul

was interpreted in the Soviet press as American support to Turkey in resisting Soviet proposals. On August 7 Moscow made a formal request for revision of the Montreux Convention and urged that the future regime of the Straits be regulated exclusively by the Black Sea States, with Turkey and the Soviet Union assuming joint responsibility for defense against any attack from the Mediterranean. On September 24, in reply to a Turkish note of the 22nd rejecting its proposals, Moscow complained of Anglo-American military influence in Turkey and warned Ankara against "organizing military measures in the Straits together with any non-Black Sea Power."

A United States note to Moscow of October 11 reiterated American willingness to participate in a general conference to revise the Montreux Convention and championed exclusive Turkish defense of the Straits, adding that any attack or threat by an aggressor should be "a matter for action on the part of the Security Council." Thus encouraged, Turkey rejected the Soviet proposals once more on October 18. David Zaslavsky in *Pravda* (October 20) wrote that the Turkish attitude was the product of "extremely crooked, secret negotiations" between Ankara and Washington. British notes to Moscow of August 21 and October 9 also rejected the Soviet proposals.

Relations with Britain. Soviet negotiations with the English-speaking Powers during 1946 were marked by bitter recriminations and successive crises during the spring and summer, followed by substantial progress in peace-making in the autumn. If the results seemed to many Britons and Americans to represent a successful challenge to Soviet "imperialism" and "expansionism," it appeared to most Soviet citizens to constitute a welcome diminution of Western threats of a new "crusade against Bolshevism."

Soviet relations with the British Commonwealth were complicated by extensive arrests and trials in Canada, beginning in mid-February, of participants in a "Soviet spy-ring," first exposed by Igor Gouzenko, a former staff member of the Soviet Embassy. Moscow admitted that its agents had obtained secret arms data during the war and said that the responsible military attaché (Col. Nikolai Zabotin) had been recalled, but denounced Gouzenko as a thief and accused the Canadian Government of ulterior motives and of launching "an unbridled anti-Soviet campaign." *Pravda* asserted (February 21) that Mackenzie King was seeking to cover up Bevin's diplomatic failures.

The British Foreign Secretary, whose proposal to extend the 20-year Anglo-Soviet alliance of 1942 to 50 years evoked no Soviet enthusiasm, remained the *bête noir* of the Soviet press. Tension was increased by reports in the fall of secret Anglo-American agreements for arms standardization and military cooperation, but was somewhat alleviated by the completion of the draft treaties with the Axis satellites and by Viscount Montgomery's visit to Moscow in mid-winter.

Relations with the United States. If the Soviet Union impressed most Americans throughout the year as a dark citadel of totalitarianism, menacing to peace and freedom, the United States impressed Red Muscovy as a stronghold of reaction and anti-Soviet intrigue, using "dollar diplomacy" and "atomic diplomacy" to threaten Soviet safety and prepare for World War III. Suspicion begot suspicion. Soviet anxiety regarding American intentions was enhanced by the utterances of the Hearst press, Cardinal Spellman, John Foster Dulles, William C. Bullitt, Winston Churchill, George H. Earle, Clare Boothe Luce, J. Edgar Hoover, Victor Kravchenko, John Stelle and a host of other publicists. Soviet-American trade nevertheless reached an all-time high, amounting to $219,113,000 worth of American exports to the U.S.S.R. and $56,894,000 worth of Soviet exports to the United States during the first half of the year.

Official diplomatic relations remained "correct." Gen. Walter Bedell Smith replaced Averill Harriman as United States Ambassador to Moscow on February 14. Nikolai Novokov replaced Groymko as Soviet Ambassador to Washington on April 10. President Truman asserted on May 30 that he had twice invited Stalin to visit the United States but that the Prime Minister had declined for reasons of health. Molotov made a friendly social call on the President in the White House on November 7. The Truman-Byrnes-Vandenberg policy of "patience and firmness," however, was viewed with jaundiced eyes by the men of Moscow.

Apart from controversies dealt with elsewhere, the following developments were newsworthy. On March 1 the State Department announced that it had invited Moscow to open negotiations for a credit of $1,000,000,000, noting that the original Soviet request for a loan had been "misplaced" in Washington for six months. Stalin expressed continued interest in a loan in November, but in spite of intermittent discussions no agreement was reached, apparently because of Soviet unwillingness to modify trade policies in Eastern Europe and commit itself to membership in the World Bank and Fund and in the projected World Trade Organization. American insistance on a broadening of the Bulgarian Government provoked sharp Soviet criticism in March which in turn led to counter-charges by Byrnes and further wrangling over Bulgarian elections in the autumn. Among the episodes promoting friction was the arrest in Portland by the F.B.I. on March 26 of Naval Lt. Nikolai G. Redin on a charge of espionage. The State Department rejected Moscow's plea that the charge be dropped. Redin was indicted by federal grand jury in Seattle early in April, but was judged innocent on July 17 and released. He expressed gratification at the fairness of his trial. *Pravda* compared the F.B.I. to the Tsarist Okhrana and accused it of plotting against American-Soviet amity.

Travel and communication between the two countries was a troubled adventure in understanding and misunderstanding. In mid-March a C.I.O. delegation which had visited the Soviet Union late in 1945 issued a sympathetic report, urging cooperation and increased trade. Censorship troubles in Moscow and the Soviet expulsion from Rumania in June of Reuben H. Markham of the *Christian Science Monitor* irked American pressmen and diplomats. In the spring Ilya Ehrenburg, Konstantin Simonov and Maj. Gen. Mikhail Galaktionov spent two months traveling in the United States at the invitation of the State Department and later reported their observations in the Soviet press. Ernest C. Ropes and Lewis L. Lorwin of the Department of Commerce visited Moscow in July and reported that the U.S.S.R. would buy two billion dollars worth of American goods if credits were extended. When a group of Russian and Ukranian artists and writers, sent as delegates to the All-Slav Congress in New York, were required in October to register as foreign agents, they cut short a concert and lecture tour and went home aggrieved. Ambassador Smith and Alexander D. Fortushenko, Deputy Minister for Communications, signed on May 24 the first bilateral American-Soviet communications agreement, providing for the estab-

lishment of two-way radio and teletype channels between the two countries. But on October 8 the Foreign Ministry denied broadcasting facilities to foreign correspondents in Moscow, including Richard Hottelet of CBS, Edmund Stevens of ABC and Robert Magidoff of NBC. Despite appeals for reconsideration, the ban was made permanent on November 19.

Much comment was aroused by the May visit to Moscow of Earl Browder, deposed leader of the American Communist Party. The visit appeared to be without political significance, however, except that Browder's cordial reception by Molotov, Lozovsky, and other officials indicated that he was still *persona grata* to the Kremlin, in spite of, or perhaps because of, his espousal of democratic capitalism rather than proletarian revolution. He returned in June with a 5-year contract as United States representative of all Soviet publishing houses. Further perturbations attended the return of Brooks Atkinson, Moscow correspondent of the *New York Times* from August 1945 to May 1946. His articles in July, accusing the Soviet Union of totalitarianism, artistic sterility, enmity toward America, and designs for world domination led to his reception by President Truman and caused David Zaslavsky in *Pravda* (July 11) to call him an "informer," "commercial traveler," "liar," "slanderer," and "pen bandit." During the second half of the year Atkinson's successor, Drew Middleton, supplied *Times'* readers with numerous informative articles on Soviet economic developments.

Press and public in the U.S.S.R. followed with mingled hope and fear the events which led to the dismissal of Henry A. Wallace from the Cabinet on September 20, after his public criticisms of Byrnes and Baruch for their alleged "get-tough-with-Russia" policy. Soviet commentators viewed with concern the Republican victory in the Congressional elections and expressed no confidence that the resignation of Baruch and Byrnes at the turn of the year would necessarily improve Soviet-American relations. In December Elliott Roosevelt, who largely shared Wallace's views, visited Moscow, where he championed concord between the two Powers but denied the correctness of a story in *Newsweek* quoting him as having condemned United States foreign policy and having charged that America had broken promises made at Teheran, Yalta, and Potsdam Soviet pressmen at the opening of the new year were still accusing Washington of offensive designs and of seeking to draw Latin America, Britain, France, Germany, and China into an anti-Soviet bloc.

Atomic Energy. Last but far from least on the agenda of American-Soviet disputation was the issue of international control of the atomic bomb. In the United Nations Atomic Energy Commission which met in June, Gromyko countered Baruch's proposal for a world authority and for "condign punishment" of violating States, with no veto in the Security Council, by urging a multilateral treaty for immediate outlawry of atomic weapons and destruction of existing stocks. After six months debate, the U.S.S.R. had accepted the principle of an international authority with powers of inspection unimpeded by any veto, approved the report of the Commission's Scientific and Technical Committee, and abstained from voting on the American control plan which was submitted to the Security Council for further consideration. Moscow reiterated its refusal to accept any plan jeopardizing the rule of unanimity of the Great Powers in any application of coercive measures against sovereign states through the United Nations.

Despite a report early in January by Dr. Raphael Armattoe, British anthropologist, that the U.S.S.R. had produced an atomic bomb far more powerful than the American version, Stalin in October said "No" to Hugh Baillie's question: "Has Russia yet developed its own atom bomb or any similar weapon?" He also referred to his September comment to Alexander Werth: "The atom bomb is meant to frighten the weak-nerved, but it cannot decide the fate of war. . . . Monopolistic possession of the atomic bomb cannot last long and the use of the atomic bomb will be prohibited." Soviet physicists continued intensive work during the year on cosmic rays and were reported to have discovered a new type of disintegration of the atomic nucleus. American physicists, with few exceptions, expressed no doubt of Soviet ability to produce atomic bombs within five years. At the beginning of 1947, however, there was little prospect of American-Soviet agreement on a plan of international control in the absence of major changes in American or Soviet policy.

See names of all other Great Powers and of all European, New Eastern, and Far Eastern States for comment on other aspects of Soviet diplomacy. See also PARIS PEACE CONFERENCE and UNITED NATIONS.

FREDERICK L. SCHUMAN.

UNITARIANS. A religious denomination, founded in England in the late 18th century, which holds belief in one God in one person as opposed to the Trinity. Headquarters, 25 Beacon Street, Boston, Massachusetts.

UNITED BRETHREN. A term used for three religious denominations in the United States, all originating in the evangelistic movement of William Otterbein and Martin Boehm about 1800. The largest body is the Church of the United Brethren in Christ with headquarters in Dayton, Ohio.

UNITED NATIONS (UN). The United Nations is an international organization open to all peace-loving nations of the world on the basis of the principle of sovereign equality. The purposes of the United Nations are: (1) to maintain international peace and security, (2) to develop friendly relations among nations, (3) to promote international economic and social cooperation, and (4) to be a center for harmonizing the actions of nations in the attainment of common ends.

The Charter of the United Nations which was drafted at the San Francisco Conference and signed by the representatives of fifty nations on June 26, 1945, came into force on October 24, 1945, when it was ratified by more than two-thirds of its signatories, including China, France, the Soviet Union, the United Kingdom, and the United States.

According to the Charter, there should be six principal organs of the United Nations: a General assembly, a Security Council, an Economic and Social Council, a Trusteeship Council, an International Court of Justice, and a Secretariat.

At the time when the Charter was signed at San Francisco the representatives of fifty nations also affixed their signatures to an agreement on Interim Arrangements which created a Preparatory Commission. The Commission held two sessions, the first session on June 27, 1945, in San Francisco, and the second session from November 24 to December 22, 1945, in London. The Commission prepared the necessary arrangements for the first meetings of the General Assembly, the Security

Council, the Economic and Social Council and the Trusteeship Council, for the convening of the International Court of Justice, and for the establishment of the Secretariat.

The first step in the formal establishment of the United Nations was the convocation of the General Assembly, on which all Member States were represented and without which the other principal organs of the United Nations could not come into being. Consequently the Preparatory Commission convoked the first session of the General Assembly on January 10, 1946.

In the course of the year all the principal organs of the United Nations had been organized and all but one had begun to operate. The first annual session of the General Assembly was divided into two parts, the first part meeting in London from January 10 to February 14, 1946, the second part in New York from October 23 to December 15. The Security Council held its first meeting on January 17 and was in continuous session throughout the year. The Economic and Social Council held three sessions in 1946, the first session from January 23 to February 18 in London, the second from May 25 to June 21 in Hunter College, New York, the third from September 11 to October 3 at Lake Success. The Trusteeship Council was organized on December 14, 1946 and was scheduled to meet not later than March 15, 1947. The International Court of Justice held its first meeting on April 3, 1946 at The Hague. The Secretary-General was appointed on February 1, 1946, and subsequently the Secretariat was organized.

The General Assembly *(First Part of First Session).* The General Assembly consists of all the Members of the United Nations. According to the Charter, the General Assembly may discuss any questions or any matters within the scope of the Charter or relating to the functions and powers of any organ of the United Nations, and may make recommendations on any such questions or matters excepting those of which the Security Council is seized.

Mr. Paul-Henri Spaak of Belgium was elected President of the General Assembly, and the chief delegates of China, France, the Union of South Africa, the Soviet Union, the United Kingdom, the United States and Venezuela were elected Vice-Presidents.

The first part of its first session of the General Assembly was devoted mainly to the initial organizational matters of the United Nations.

The General Assembly established two Procedural Committees: a Credentials Committee to verify the credentials of the representatives, and a General Committee to determine the agenda of the Assembly The substantive work of the Assembly was distributed to six Main Committees: First Committee, Political and Security; Second Committee, Economic and Financial; Third Committee, Social, Humanitarian and Cultural; Fourth Committee, Trusteeship; Fifth Committee, Administrative and Budgetary; Sixth Committee, Legal In addition, the Assembly established two Ad Hoc Committees: a Permanent Headquarters Committee and a League of Nations Committee.

Each member of the Assembly has one vote. Decisions of the Assembly on important questions are made by a two-thirds majority of the members present and voting; decisions on other questions are made by a simple majority of the members present and voting.

In all principal organs other than the International Court of Justice, the General Assembly resolved that Chinese, French, English, Russian, and Spanish are to be the official languages of the United Nations, and English and French the working languages. The official languages of the Court, as set forth in the Statute, are French and English.

Organizational Matters One of the first matters to occupy the attention of the General Assembly was the election of the non-permanent members of the Security Council. On January 12, 1946 the General Assembly elected Australia, Brazil, and Poland for a term of two years; and Egypt, Mexico, and the Netherlands for a term of one year. On the same day the General Assembly, in accordance with Article 61 of the United Nations Charter, elected the eighteen members of the Economic and Social Council. On February 1, 1946 the Assembly, on the recommendation of the Security Council, appointed Mr. Trygve Lie of Norway as the first Secretary-General of the United Nations. Voting independently, the General Assembly and the Security Council, on February 6, elected the fifteen judges of the International Court of Justice, in accordance with Articles 8–12 of the Statute of the International Court of Justice.

Political and Security Questions. Upon the proposal of Canada, China, France, the Soviet Union, the United Kingdom, and the United States, the General Assembly established an Atomic Energy Commission which was instructed to inquire into all phases of the atomic problem and make specific proposals: "(a) for extending between all nations the exchange of basic scientific information for peaceful ends; (b) for control of atomic energy to the extent necessary to ensure its use only for peaceful purposes; (c) for the elimination from national armaments of atomic weapons and of all other major weapons adaptable to mass destruction, and (d) for effective safeguards by way of inspection and other means to protect complying States against the hazards of violations and evasions."

The Assembly called upon both members and non-members of the United Nations to cause the arrest of war criminals. It also reminded the members that membership in the United Nations would not be open to the Franco Government of Spain.

Economic and Social Matters. Upon the reports of the Second and Third Committees, the General Assembly recommended that the Economic and Social Council should establish a Commission on Human Rights, an Economic and Employment Commission, a Temporary Social Commission, a Statistical Commission, a Commission on Narcotic Drugs, a Demographic Commission, a Temporary Transport and Communications Commission, and a Fiscal Commission.

The Assembly recommended that the Economic and Social Council should bring specialized agencies into relationship with the United Nations and make arrangements for consultation with international and national non-governmental organizations.

The Assembly established a committee to urge upon the States signatory to the UNRRA agreement to make further contributions and to urge upon Members of the United Nations who were not signatories to the UNRRA agreement to join the organization.

The Assembly recommended to the Economic and Social Council that a special committee be instituted for the purpose of preparing a report on the problem of refugees and displaced persons; and asked the Council to place the subject of economic reconstruction of devastated areas on the agenda of its first session.

The Assembly urged all governments and peoples to take immediate and drastic action to con-

serve cereal supplies and to ensure the maximum production of grain in the coming season.

Trusteeship. The General Assembly, having considered the report of the Fourth Committee, expressed its regret that the Trusteeship Council could not be brought into being immediately, on account of the fact that no trusteeship agreements had been concluded, although several mandatory powers had declared their intention of concluding such agreements. The General Assembly, therefore, invited the mandatory powers to submit draft trusteeship agreements for approval during the second part of the first session of the General Assembly.

The Assembly drew attention to the fact that the obligations under Chapter XI of the Charter of Members of the United Nations assuming responsibilities for the administration of non-self-governing territories were in no way contingent upon the conclusion of trusteeship agreements or upon the bringing into being of the Trusteeship Council and were, therefore, already in force. It requested members to transmit information on economic, social and educational conditions in non-self-governing territories.

Administrative and Budgetary Matters. On the recommendation of the Fifth Committee the General Assembly resolved to fix the salary of the Secretary-General at $20,000 (U.S.) together with representation allowance of $20,000 (U.S.) per annum. The first Secretary-General, the Assembly decided, shall be appointed for five years, the appointment being open at the end of that term for a further five-year period.

The General Assembly resolved that the United Nations Secretariat should consist of eight departments as follows: (1) Department of Security Council Affairs, (2) Department of Economic Affairs, (3) Department of Social Affairs, (4) Department for Trusteeship and Information from Non-Self-Governing Territories, (5) Department of Public Information, (6) Legal Department, (7) Conference and General Services, (8) Administrative and Financial Services. The Secretary-General was authorized to appoint Assistant Secretaries-General to head the eight departments and such other officials and employees as were required, and to prescribe their responsibilities and duties.

The Assembly adopted a provisional budget of $21,500,000 (U.S.) for the financial year 1946, and established a working capital fund of $25,000,000 (U.S.) to finance the provisional budget. The Assembly directed the Secretary-General to prepare the first and second annual budgets (1946 and 1947), and appointed a Committee on Contributions to prepare a scale for the apportionment of expenses among the Members of the United Nations.

Legal Matters. The General Assembly adopted a Convention on the Privileges and Immunities of the United Nations and proposed it for the accession by each member of the United Nations. The Convention contains nine articles. Article 1 provides that the United Nations shall possess juridical personality. Article 2 provides that the United Nations, its property and assets wherever located, shall enjoy immunity from any form of legal process; that the premises of the United Nations and the archives of the United Nations shall be inviolable; that the income and other property of the United Nations shall be exempt from all direct taxes and from customs duties. Article 3 stipulates that the United Nations shall enjoy in the territory of each member facilities with respect to its official communications not less favourable than those accorded by the Government of that member to any other Government. Articles 4, 5 and 6 provide respectively that the representatives of members, officers of the United Nations and experts on missions for the United Nations shall enjoy such immunities and privileges as may be necessary for the exercise of their functions. Article 7 provides that the United Nations may issue laissez-passer to its officials. Article 8 provides for the settlement of disputes, and the Final Article for the accession to the Convention.

The General Assembly requested the members of the United Nations to transmit to the Secretary-General for filing and publication treaties and international agreements entered into in recent years which had not been included in the League of Nations treaty series, and to transmit for registration and publication treaties and international agreements entered into after the date of entry into force of the Charter.

Permanent Headquarters. The General Assembly resolved that the permanent headquarters of the United Nations should be established in Westchester county, New York, or in Fairfield county, Connecticut, or in both, i.e., near to New York City, and that the interim headquarters should be established in New York City.

A Headquarters Commission composed of representatives of Australia, Uruguay, China, France, Iraq, the Netherlands, the United Kingdom, the Union of Soviet Socialist Republics, and Yugoslavia was set up. The Commission was to make an on-the-spot study and to make recommendations as to the exact location of the permanent headquarters.

League of Nations. The Assembly declared that the United Nations was willing to accept custody of the instruments of the League and charge the Secretariat with the task of performing the functions formerly entrusted to the League. In regard to those functions of a technical and non-political character, the Assembly requested the Economic and Social Council to make a survey in order to determine which should be assumed by the organs of the United Nations and which should be entrusted to specialized agencies. In regard to those functions having a political character, the Assembly itself would examine them.

The General Assembly requested the Secretary-General to make provisions for taking over and maintaining the Library and Archives of the League and for completing the League treaty series.

The Assembly set up a small negotiating committee to assist the Secretary-General in negotiating agreements in connection with the transfer of certain assets.

The Security Council. The Security Council is charged with the primary responsibility for the maintenance of international peace and security. According to the Charter, the Security Council may investigate any disputes which might threaten the maintenance of international peace and security and may make recommendations on appropriate procedures or actual terms of pacific settlement of such disputes; and it shall determine the existence of any threat to the peace, breach of the peace or act of aggression and may take enforcement measures such as interruption of economic relations and severance of diplomatic relations or action by land, air or sea forces.

The permanent members of the Security Council are China, France, the Soviet Union, the United Kingdom and the United States. The non-permanent members are Australia, Brazil, and Poland for the years 1946 and 1947, and Egypt, Mexico, and the Netherlands for the year 1946.

Each member of the Security Council has one vote. Decisions of the Security Council on procedural matters are made by an affirmative vote of seven members. Decisions on all other matters are made by an affirmative vote of seven members including the concurring votes of the permanent members; provided that a party to a dispute shall abstain from voting in decisions on pacific settlement of the dispute.

In fulfilling its primary responsibility for the maintenance of international peace and security, the Council during the course of the year had considered the following major political questions.

The Iranian Question. In a letter dated January 19, 1946 the Head of the Delegation of Iran stated that owing to interference of the USSR in the internal affairs of Iran "a situation has arisen which might lead to international friction." On January 30 the Security Council, "considering that both parties have affirmed their readiness to seek a solution of the issue by negotiation," requested Iran and the USSR to inform the Security Council of the result of their negotiations.

In a letter of March 18, 1946 the Iranian Ambassador to the United States reported continuing interference by the USSR in Iranian affairs. He stated that the USSR was maintaining troops in Iranian territory after March 2, 1946, contrary to the Tripartite Treaty of Alliance of January 29, 1942 After several meetings the Security Council, on April 4, 1946, voted to defer action on the Iranian complaint until May 6, at which time both the USSR and Iran were to report to the Security Council whether the withdrawal of Soviet troops from the whole of Iran had been completed. A proposal by the representative of the USSR, contained in a letter of April 6, 1946, to remove the Iranian question from the agenda of the Security Council, was rejected by the Council on April 23, although the Iranian Ambassador to the United States, in a letter of April 15, had communicated the text of a telegram from his Government withdrawing the Iranian complaint from before the Security Council.

On May 6 the Iranian Ambassador to the United States reported the withdrawal of Soviet troops from Iranian territory with the exception of the province of Azerbaijan. Interference by the USSR in Azerbaijan, the Ambassador stated, made it impossible for the Iranian Government, to determine whether Soviet troops had been withdrawn.

On May 21 the Iranian Ambassador reported that a commission of investigation despatched by the Iranian Prime Minister had found no trace of "Soviet troops, equipment or means of transport," and that according to trustworthy local people Soviet troops had evacuated Azerbaijan on May 6. The Security Council, therefore, voted to adjourn discussion of the Iranian question "until a date in the near future."

The Greek Question. On January 21 the Delegation of USSR requested the Security Council to discuss the situation in Greece on the grounds that the presence of British troops in Greece constituted an interference in the internal affairs of Greece and provided a threat to the maintenance of international peace. The points of view of the British and Soviet representatives were heard, and Greece, not a member of the Security Council, was invited to participate in the discussion. Other members of the Security Council also participated in the discussion. On February 6 the President of the Security Council stated that the Council should take note of the declarations made in connection with the Greek question as recorded in the proceedings of the Council, and consider the matter as closed. The statement was accepted.

The Indonesian Question. On January 21 the representative of the Ukrainian SSR drew the attention of the Security Council to the situation in Indonesia, which, it was alleged, created a threat to the maintenance of international peace and security. The representative of the Ukrainian SSR, who was invited to participate in the discussion, proposed on February 13 to set up a commission which should carry out an inquiry on the spot, establish peace in Indonesia and report to the Security Council on the result of its work. The resolution was lost.

An Egyptian proposal that British troops should not be used against the National Indonesian Movement and should be withdrawn from Indonesia as soon as the surrender of Japanese troops had been completed failed to obtain the required number of votes. The matter was thus closed.

The Syrian and Lebanese Question. On February 4 the Heads of the Delegations of Lebanon and Syria brought to the attention of the Security Council the presence of British and French troops in Syria and Lebanon. The representative of the United States proposed a resolution stating that the Security Council expressed its confidence that negotiations for the withdrawal of British and French troops from Syria would be undertaken without delay. As the USSR, a permanent member of the Security Council, voted against the resolution, it was considered lost. Nonetheless, the representatives of France and Great Britain, by letters of April 30 and May 1 respectively, informed the Security Council that Great Britain and France had agreed to withdraw their troops from Syria by April 30. By a telegram of May 19 the Syrian Prime Minister confirmed that the withdrawal had been completed during the first two weeks of April.

As regards Lebanon, France agreed to withdraw all but a small group of her troops by August 31. Great Britain agreed to withdraw her troops, except for a small liquidation party, by June 30. In a letter of May 9 the Lebanese Foreign Minister expressed his satisfaction with the outcome of the negotiations.

The Spanish Question. By letters dated April 8 and 9, the Polish representative drew the attention of the Security Council to "the situation arising from the existence and activities of the Franco regime in Spain." On April 17 he proposed that the Security Council declare that the existence of the Franco regime endangered international peace and security, and that the Council, therefore, call upon all members of the United Nations to sever diplomatic relations with the Franco government.

The Security Council appointed a Sub-Committee of five to study the Spanish question. On June 6 the Sub-Committee reported that it did not find the activities of the Franco regime to constitute an existing threat to the peace. Such activities, nevertheless, were considered "a potential menace to international peace and security." The Sub-Committee, therefore, recommended that the evidence and reports of the Sub-Committee be transferred by the Security Council to the General Assembly, and that unless the Franco regime was withdrawn the Assembly should recommend that diplomatic relations with the Franco regime be terminated forthwith by each member of the United Nations. A resolution to adopt these recommendations of the Sub-Committee was not carried as a result of the negative vote of the USSR. After further discussion the Security Council finally resolved to "keep the situation in Spain under continuous ob-

servation and maintain it upon the list of matters of which it is seized, in order that it will be at all times ready to take such measures as may become necessary to maintain international peace and security."

The Greek Question. By a letter dated August 24 the Foreign Minister of the Ukrainian SSR called the attention of the Security Council to the situation in the Balkans resulting from the policies of the Greek Government which, he considered, constituted a threat to the peace. He requested that the Council consider appropriate measures to eliminate this threat to the peace. The representatives of the Ukrainian SSR and of Greece participated in the discussion of the Ukrainian proposal. The representative of Greece rejected all the charges contained in the Ukrainian proposal, pointing out the smallness of the Greek army in comparison to that of her northern neighbours, recalling the list of frontier incidents provoked by Albania submitted previously by Greece to the Security Council, reiterating that all successive Greek governments since liberation consented to the presence of British troops in Greece, and reminding the Council of the collaboration of Albania with Fascist Italy during the war. On September 5 the representative of the Albanian People's Republic presented his Government's views. By a telegram of September 11 the Minister of Foreign Affairs of the People's Republic of Albania drew the attention of the Council to the situation on the Greco-Albanian frontier resulting from continual provocations by Greek soldiers.

On September 18 the representative of the USSR submitted a resolution charging that aggressive Greek monarchist elements were striving to provoke an armed conflict between Greece and Albania for the purpose of detaching Southern Albania for the benefit of Greece. The resolution, further, cited the persecution of national minorities in Greece, political terrorism, and the presence of British troops in Greece, as factors endangering international peace and security. The representative of the USSR, therefore, requested that the Security Council call upon Greece to put an end to provocative frontier incidents and to the persecution of minorities, and that the Council retain the Greek question on its agenda. The resolution was rejected on September 20.

The Security Council failed to adopt two further resolutions on the Greek situation. The representative of the Netherlands had proposed that the Security Council express its earnest hope that both the Greek and Albanian Governments would do their utmost to stop regrettable border incidents by giving appropriate instructions to their national authorities. The representative of the United States had suggested that the Security Council establish a commission of three individuals nominated by the Secretary-General to investigate "the border incidents along the frontier between Greece on the one hand and Albania, Bulgaria, and Yugoslavia on the other."

The representative of Poland then moved that "the Security Council, having considered the situation brought to its attention by the Ukrainian SSR, decides to keep the situation under observation and to retain it on the list of matters with which the Council is seized." As the resolution was not adopted, the Greek case was considered closed.

The Balkan Question. The Acting Chairman of the Greek Delegation, by letter dated December 3, 1946, requested under Articles 34 and 35(1) of the Charter that the Security Council consider the Greek border situation which was leading to friction between Greece and her northern neighbors. On December 10, the Council placed this question on its agenda, and adopted a resolution inviting the representatives of Greece and Yugoslavia to participate in the discussion without vote and the representatives of Albania and Bulgaria to make declarations.

After considerable debate the Council unanimously decided on December 19 to establish a Commission of Investigation composed of a representative of each of the members of the Security Council for the purpose of ascertaining the facts relating to the alleged border violations along the frontier between Greece on the one hand, and Albania, Bulgaria, and Yugoslavia on the other. The Commission was instructed to proceed to the area not later than January 15, 1947 and to submit its report at the earliest possible date.

Admission of New Members. Under Article 4 of the United Nations Charter membership in the United Nations is open to all peace loving nations which accept the obligations contained in the Charter and which, in the judgment of the United Nations, are able and willing to carry out those obligations Applications for membership are granted by the General Assembly upon recommendation of the Security Council. Up to September 1946 the Security Council had considered eight such applications during the year, as follows: (1) People's Republic of Albania, January 25; (2) Mongolian People's Republic, June 24; (3) Afghanistan, July 2; (4) Hashamed Kingdom of Trans-Jordan, July 8; (5) Ireland, August 2; (6) Portugal, August 2; (7) Iceland, August 2; (8) Sweden, August 9. Siam, which had expressed a desire to become a member of the United Nations in a letter from the Siamese Foreign Minister to the Secretary-General of the United Nations dated May 20, subsequently withdrew her application for membership.

On May 17 the Security Council decided to refer all applications for membership to a committee composed of a representative of each of the members of the Council for examination. The Security Council considered the report of the Committee on the Admission of New Members on August 28 and 29. The representative of the United States proposed that the Security Council recommend the admission of all applicants "to accelerate advancement of the universality of membership." This proposal encountered objections from the representatives of the USSR and Australia and was, therefore, not adopted. The Council then discussed the merits of each application and voted separately on each. It was decided to recommend Afghanistan, Iceland, and Sweden for membership in the United Nations. The applications of Albania, Mongolia, Trans-Jordan, Ireland, and Portugal were not recommended to the General Assembly by the Security Council.

On November 29 Siam requested the reconsideration of its application. The Security Council decided on December 12 to recommend to the General Assembly that Siam be admitted as a Member of the United Nations.

Military Staff Committee. Under Article 43 of the United Nations Charter all Members of the United Nations "undertake to make available to the Security Council, on its call and in accordance with a special agreement or agreements, armed forces, assistance and facilities necessary for the purpose of maintaining international peace and security." Article 47 of the Charter provides that a Military Staff Committee, composed of the Chiefs of Staff of the permanent members of the Security Council or their representatives, be established to assist the

Security Council on all questions related to the Security Council's military requirements, and the employment, command and strategic direction of armed forces placed at the disposal of the Security Council.

In accordance with these provisions, the Security Council at its second meeting issued a directive requesting the Military Staff Committee to assemble and to draw up proposals for its organization and procedure. The Committee met in London from February 4 to February 14. It resumed its sessions at the Henry Hudson Hotel in New York on March 25.

The Military Staff Committee submitted a draft Statute and Rules of Procedure to the Security Council, which the Council referred to the Committee of Experts for examination. Pending final approval of the Military Staff Committee's proposals, the Draft Statute and Draft Rules of Procedure were adopted provisionally.

On February 16 the Security Council directed the Military Staff Committee "to examine from the military point of view the provisions in Article 43 of the Charter" As a first step in accomplishing this task, the Military Staff Committee decided to formulate recommendations to the Security Council as to the basic principles which should govern the organization of the United Nations forces. To this end the Military Staff Committee formed a Sub-Committee, which first met on March 28. The Sub-Committee has been studying the views submitted by the Delegations of China, France, the United Kingdom, the United States, and the USSR.

The Military Staff Committee formed a second Sub-Committee for the purpose of preparing a standard form of agreement between the Security Council and the Member Nations of the United Nations concerning the provision of armed forces.

Atomic Energy Commission. On January 24 the General Assembly of the United Nations unanimously resolved to establish a Commission to deal with the problems raised by the discovery of atomic energy to be composed of one representative from each of the States represented on the Security Council and Canada, when the latter is not a member of the Security Council. The Commission is to submit its report and recommendations to the Security Council.

By May 28 all States entitled to representation on the Atomic Energy Commission had appointed their representatives The Secretary-General convened the first meeting of the Atomic Energy Commission for June 14 A Committee on Rules of Procedure was appointed, which submitted a draft. After adoption by the Atomic Energy Commission on July 3 the Security Council approved the provisional rules of procedure for the Atomic Energy Commission on July 10.

At the first meeting of the Atomic Energy Commission the representative of the United States presented a plan calling for the creation of an International Atomic Development Authority entrusted with all phases of the development and use of atomic energy. The Authority should conduct continuous surveys of world supplies of uranium and thorium, and bring the raw materials under its dominion. It should control and operate all primary production plants producing fissionable materials in dangerous quantities. It should possess the exclusive right to conduct research in the field of atomic explosives, and all other atomic research should be open only to nations under license of the Authority. Dangerous activities of the Authority, and its stockpiles, should be decentralized and strategically distributed. All nations should grant freedom of inspection deemed necessary by the Authority. The representative of the United States stressed the importance of immediate punishment for infringement of the rights of the Authority. He urged that "there must be no veto to protect those who violate their solemn agreements not to develop or use atomic energy for destructive purposes."

On July 19 the representative of the USSR suggested that the first measure to be adopted should be the conclusion of an international agreement to forbid the production and use of atomic energy weapons, all stocks of atomic weapons should be destroyed three months from the entry into force of the agreement. Violation of the agreement should be severely punished under the domestic legislation of the contracting parties.

The Atomic Energy Commission decided to establish a Working Committee to consider all proposals made in the Commission with regard to the control of atomic energy. The Working Committee set up three other committees: Committee 2, to examine questions associated with the control of atomic energy activities and to make specific recommendations for such control; a Legal Advisory Committee to examine the legal aspects of atomic energy control; and a Scientific and Technical Committee to advise on the scientific aspects of the problem.

On July 31 Committee 2 requested the Scientific and Technical Committee to prepare a report on the question of whether effective control of atomic energy was possible, together with an indication of the methods by which the Scientific and Technical Committee considered that effective control could be achieved. After eight weeks of intensive study the Scientific and Technical Committee, on September 26, unanimously adopted a Report for submission to Committee 2. The Scientific and Technical Committee concluded that it did not find any basis in the available scientific facts for supposing that effective control of atomic energy was not technologically feasible. Whether or not it was politically feasible was for the Atomic Energy Commission to decide.

Both Committee 2 and the Atomic Energy Commission subsequently held informal discussion meetings concerning various aspects of atomic energy control on the basis of the findings of the Scientific and Technical Committee.

On October 15, at an informal meeting of Committee 2, the representative of the USSR proposed that atomic energy control begin at the most basic stage—unmined mineral resources—and called for a world wide report on uranium deposits.

On October 17 the Committee unanimously adopted a work plan suggested by the Atomic Commission Group of the Secretariat. Under the Secretariat outline, Committee discussions on safeguards to prevent diversion of materials followed a seven-step plan: uranium and thorium mines, concentration plants, refineries, chemicals and metallurgical plants, primary reactors and associated chemical separation plants, isotope separation plants, and secondary reactors.

On November 13 the Atomic Energy Commission held a formal meeting at which it decided to submit to the Security Council by December 31 a report of its proceedings, findings and deliberations to date, and to direct Committee 2 to submit a draft of such a report or parts thereof from time to time to the Commission for consideration and action, such draft to be completed by December 20.

At the meeting of the Commission on December 5 the delegate of the United States proposed that the Atomic Energy Commission's report to

the Security Council should consist of the following three parts: (1) a summary of the proceedings together with the records of the Commission and of its committees and sub-committees; (2) certain findings of the Commission based on its deliberations to date; and (3) certain recommendations of the Commission based on its findings to date. He submitted a draft resolution to the Atomic Energy Commission containing certain findings and recommendations.

After lengthy discussion the Atomic Energy Commission on December 30, decided by ten to zero, with the Soviet Union and Poland abstaining, to submit its report to the Security Council. The report recommended, on the basis of the United States proposals, the establishment of "a strong and comprehensive international system of control and inspection," the terms and functions of which should be defined in a treaty or convention. The treaty should include the establishment, within the United Nations, of an International Authority, in the operation of which no Government shall possess any right of veto; afford representatives of the Authority rights of ingress, egress and access to, from and within the territory of every participating nation, prohibit the manufacture and use of atomic weapons; provide for the disposal of existing stocks of atomic weapons; establish measures of enforcement and punishment to be imposed upon individuals and upon nations guilty of violating the terms of the treaty. See also ATOMIC ENERGY.

The Economic and Social Council. The Economic and Social Council, operating under the authority of the General Assembly, is to initiate studies and make recommendations with respect to international economic and social matters, to promote respect for, and observance of, human rights and fundamental freedoms, to prepare draft conventions and call international conferences with respect to matters falling within its competence. It may enter into agreements with specialized agencies and co-ordinate the policies and activities of such agencies.

The Council consists of eighteen members elected by the General Assembly for three-year terms. However, in the first election, six were elected for a term of one year, six for two years and six for three years. The members elected were:

One-Year Term: Colombia, Greece, Lebanon, Ukraine, United States, Yugoslavia.

Two-Year Term: Cuba, Czechoslovakia, India, Norway, Soviet Union, United Kingdom.

Three-Year Term: Belgium, Canada, Chile, China, France, Peru.

During 1946 the Council held three sessions. Sir Ramaswami Mudaliar of India was elected President of the Council. and Mr Andrija Stampar of Yugoslavia and Mr. Lleras Restrepo of Colombia, respectively, first and second Vice-Presidents.

Commissions. In the course of the year, the Council set up nine permanent commissions and a number of sub-commissions to undertake the great task of realizing the manifold objectives with regard to international economic and social co-operation embodied in the Charter.

The nine commissions of the Economic and Social Council are:

Narcotics Commission,
Economic and Employment Commission,
Transport and Communications Commission,
Statistical Commission,
Commission on Human Rights
Social Commission,
Commission on the Status of Women,
Fiscal Commission,
Population Commission.

The *Narcotics Commission* consists of the following fifteen members each for the regular term of three years: Canada, China, Egypt, France, India, Iran, Mexico, the Netherlands, Peru, Poland, Turkey, United Kingdom, United States of America, Union of Soviet Socialist Republics, and Yugoslavia.

This Commission is to assist the Council in exercising such powers of supervision over the application of international conventions and agreements dealing with narcotic drugs as may be assumed by or conferred on the Council; carry out such functions entrusted to the League of Nations Advisory Committee on Traffic in Opium and other Dangerous Drugs by the international conventions in narcotic drugs as the Council may find necessary to assume and continue, advise the Council on all matters pertaining to the control of narcotic drugs, and prepare such draft international conventions as may be necessary; consider what changes may be required in the existing machinery for the international control of narcotic drugs and submit proposals thereon to the Council; and perform such other functions relating to narcotic drugs as the Council may direct.

The *Economic and Employment Commission* consists of the following fifteen members: for two years, Belgium, France, Brazil, United Kingdom, Poland; for three years, Canada, China, India, Czechoslovakia, Norway; for four years, Cuba, USA, USSR, Australia, Byelorussia.

This Commission is to advise the Council on economic questions in order to promote higher standards of living. In particular, it is to advise the Council on the prevention of wide fluctuations in economic activity and the promotion of full employment by the co-ordination of national full employment policies and by international action; problems of the reconstruction of devastated areas and other urgent problems arising from the war, with a view to developing means of giving real help to various Members of the United Nations whose territories were devastated by the enemy as a result of occupation and war activities; the promotion of economic development and progress with special regard to the problems of less developed areas.

The Economic and Employment Commission set up the following three sub-commissions: Economic Reconstruction of Devastated Areas, Employment and Economic Stability, Economic Development.

The Sub-Commission on the Economic Reconstruction of Devastated Areas is to advise the Commission on the nature and scope of the economic reconstruction problems of those countries facing urgent tasks in this field whether by reason of occupation or physical devastation and on the progress of reconstruction and the measures of international co-operation by which the reconstruction of those countries might be effectively facilitated.

The Sub-Commission on Employment and Economic Stability is to study national and international full employment policies and fluctuations in economic activity; to analyze the causes of these fluctuations, and to advise the Commission on the most appropriate methods of promoting full employment and economic stability.

The Sub-Commission on Economic Development is to study and advise the commission on the principles and problems of long-term economic development with particular attention to the inadequately developed parts of the world, and to advise the Commission on promoting the fullest and

most effective utilization of natural resources, labor and capital; raising the level of consumption, and studying the effects of industrialization and changes of a technological order upon the world economic situation.

The *Transport and Communications Commission* consists of the following fifteen members: for two years, India, Netherlands, United Kingdom, Poland, Brazil; for three years, Chile, China, France, Norway, South Africa; for four years, USA, Egypt, USSR, Czechoslovakia, Yugoslavia.

This Commission is to advise the Council on the co-ordination of the work of the specialized agencies in the sphere of transport and communications, to advise the Council in fields where no permanent international organization yet exists and on problems which concern more than one sphere of transport or communications; and to suggest to the Council the creation of new agencies, or the conclusion of new conventions or the revision of existing conventions.

The *Statistical Commission* consists of the following twelve members: for two years, Netherlands, USA, USSR, China; for three years, India, Canada, Mexico, Ukraine; for four years, France, Norway, United Kingdom, Turkey.

This Commission is to assist the Council in promoting the development of national statistics and the improvement of their comparability; in advising the organs of the United Nations on general questions relating to the collections, interpretation and dissemination of statistical information; and in promoting the improvement of statistics and statistical methods generally.

The *Commission on Human Rights* is composed of the following eighteen members: for two years, United Kingdom, China, Uruguay, Lebanon, Panama, Byelorussia, for three years, France, Egypt, India, USSR, Ukraine, Iran; for four years, Belgium, Chile, Australia, USA, Philippines, Yugoslavia

This Commission is to study problems relating to an international bill of rights, international declarations or conventions on civil liberties, freedom of information and similar matters; the protection of minorities; and the prevention of discrimination on grounds of race, sex, language or religion.

The *Social Commission* consists of the following eighteen members: for two years, France, USA, Czechoslovakia, South Africa, Greece, USSR, for three years, Netherlands, New Zealand, Peru, Colombia, United Kingdom, Yugoslavia; for four years, Canada, China, Denmark, Ecuador, Poland, Iraq

This Commission is to advise the Council on social questions of a general character, and in particular on all matters in the social field not covered by specialized inter-governmental agencies; on practical measures that may be needed in the social field; on measures needed for the co-ordination of activities in the social field; and on such international agreements and conventions on any of these matters as may be required, and on their execution.

The *Commission on the Status of Women* consists of the following fifteen members: for two years, India, Australia, China, Byelorussia, Guatemala; for three years, United Kingdom, USSR, USA, Syria, Mexico; for four years, Denmark, France, Venezuela, Costa Rica, Turkey.

This Commission is to prepare recommendations and reports to the Council on promoting women's rights in political, economic, social and educational fields. It may also make recommendations to the Council on urgent problems requiring immediate attention in the field of women's rights.

The *Fiscal Commission* consists of the following fifteen members: for two years, USA, Belgium, Czechslovakia, India, New Zealand; for three years, Colombia, USSR, Cuba, Lebanon, Poland; for four years, China, France, United Kingdom, South Africa, Ukraine.

This Commission is to study the problems of public finance that are of international or collective interest. It will offer guidance in its field to the Council, the other organs of the United Nations and the Member states. Its activities will consist in the formulation of principles of financial legislation and administration, the preparation of draft tax treaties and the presentation of scientific reports, as well as practical recommendations on current fiscal problems.

The *Population Commission* consists of the following twelve members: for two years, USA, USSR, China, United Kingdom; for three years, France, Australia, Canada, Ukraine; for four years, Peru, Brazil, Netherlands, Yugoslavia.

This Commission is to study and advise the Council on population changes, factors associated with such changes, and policies designed to influence these factors; inter-relationship of economic and social conditions and population trends; and migratory movements of population and factors associated with such movements.

The Specialized Agencies. Article 57 of the United Nations Charter states: "The various specialized agencies, established by inter-governmental agreement and having wide international responsibilities, as defined in their basic instruments, in economic, social, cultural, educational, health, and related fields, shall be brought into relationship with the United Nations."

More specifically, the Charter outlines the responsibilities of the Economic and Social Council in this respect. The Council may enter into agreements with the specialized agencies, defining the terms on which the agency concerned shall be brought into relationship with the United Nations, such agreements being subject to approval by the General Assembly. It may co-ordinate the activities of the specialized agencies through consultation with and recommendations to such agencies and through recommendations to the General Assembly and to the Members of the United Nations. The Council may also take appropriate steps to obtain regular reports from the specialized agencies, and it may communicate its observations on these reports to the General Assembly. It may, with the approval of the General Assembly, perform services at the request of specialized agencies The Council may make arrangements for representatives of the specialized agencies to participate, without vote, in its deliberations and in those of the commissions established by it, and for its representatives to participate in the deliberations of the specialized agencies.

Pursuant to directives from the General Assembly, the Economic and Social Council, at its first session in London, began the work of bringing international organizations having wide international responsibilities into relatonship with the United Nations by appointing a Committee on Negotiations with Inter-Governmental Agencies. The Council designated the following members to constitute the Committee: Belgium, Canada, Chile, China, Colombia, Czechoslovakia, France, Norway, USSR, United Kingdom, USA, and the President of the Council.

Agreements had been negotiated with the following organizations: The International Labor Organization, the United Nations Educational, Scientific

and Cultural Organization, the Food and Agriculture Organization and the Provisional International Civil Aviation Organization. Owing to the fact that the International Monetary Fund and the International Bank for Reconstruction and Development were facing urgent organizational problems, negotiations with them were postponed until a later date. However, the Fund and the Bank informed the Secretary-General that they were most desirous of continuing and intensifying practical co-operation with the United Nations.

Each agreement contains the following provisions; recognition by the United Nations of the specialized functions of each agency; reciprocal representation; recommendations by the United Nations to the agency; exchange of information and documents; assistance by the agency to the Security Council and the Trusteeship Council; authorization by the General Assembly that the agency may request advisory opinions of the International Court of Justice on legal questions; consultation between the United Nations and the agency on the establishment of an international civil service; co-operation in statistical services and in administrative and technical services; co-operation in budgetary and financial arrangements, and liaison arrangements between the United Nations and the agency.

In addition to agreements being negotiated with existing specialized agencies, the Economic and Social Council took preparatory steps for the setting up of three new specialized agencies: World Health Organization, International Refugee Organization and International Trade Organization.

At its first session the Economic and Social Council decided to convene an International Health Conference and appointed a Preparatory Technical Committee to prepare an agenda for the conference. The conference was held in New York from June 19 to July 22, and adopted a Constitution of the World Health Organization. Pending the formal establishment of the Organization, an Interim Health Commission was set up whose secretarial staff was provided by the United Nations Secretariat.

The World Health Organization is intended to be the sole organization of its kind and to absorb the League of Nations Health Organization and the *Office international d'Hygiene publique* and assume in addition the functions entrusted to the United Nations Relief and Rehabilitation Administration under the International Sanitary Conventions of 1944.

The General Assembly had referred to the Economic and Social Council the question of refugees, whereupon the Council set up a Special Committee on Refugees and Displaced Persons to study the problem and making recommendations. The Committee agreed on the necessity of establishing a new international body to deal with the problem of refugees and displaced persons and at its third session the Economic and Social Council decided to establish a new specialized agency to be known as the International Refugee Organization which would repatriate those refugees and displaced persons desiring to return to their countries of origin and resettle those having a valid objection to being so repatriated. The Council adopted a draft Constitution of IRO and submitted it to the General Assembly for approval.

The Economic and Social Council approved a resolution during its first session concerning the calling of an International Conference on Trade and Employment and appointed a Preparatory Committee to prepare an agenda. The Council suggested that the agenda should include: (1) international agreements relating to the achievements of high levels of employment; regulations, restrictions and discriminations affecting international trade, restrictive business practices and inter-governmental commodity arrangements; and (2) the establishment of an International Trade Organization as a specialized agency of the United Nations. It was thought impossible to hold the Conference in 1946 but the Preparatory Committee of the Conference met on October 15 in London and was comprised of representatives of the following countries: Australia, Belgium, Luxembourg, Brazil, Canada, Chile, China, Cuba, Czechoslovakia, France, India, Lebanon, Netherlands, New Zealand, Norway, South Africa, USSR, USA, and the United Kingdom. The second session of the Preparatory Committee was scheduled to meet on April 8, 1947 in Geneva.

Non-Governmental Organizations. Article 71 of the Charter states: "The Economic and Social Council may make suitable arrangements for consultations with non-governmental organizations which are concerned with matters within its competence. Such arrangements may be made with international organizations and, where appropriate, with national organizations after consultations with the Member of the United Nations concerned."

It should be noted that these relationships with non-governmental organizations are on a consultative basis only.

Organizations desiring to make arrangements for consultation with the Council are divided into three categories:

(a) Organizations which have a basic interest in most of the activities of the Council, and are closely linked with the economic or social life of the areas which they represent,

(b) Organizations which have a special competence but are concerned specifically with only a few of the fields of activity covered by the Council,

(c) Organizations which are primarily concerned with the development of public opinion and with the dissemination of information.

Organizations in category (a), in addition to sending observers to public meetings of the Council, may circulate to members of the Council written communications, and they may be invited to consult with a standing committee if the Council so desires or the organization so requests. Organizations in categories (b) and (c) may send observers to public meetings. However, their communications would be placed on a list and would be distributed only on the request of a member of the Council. They may be invited to consult with a committee appointed for that purpose if the Council so desires or the organization so requests.

With regard to national organizations, they should normally present their views through their respective governments or through international non-governmental organizations to which they belong. However, they may be eligible for consultation if they cover a field not covered by any international organization, or have special experience.

The World Federation of Trade Unions, the International Co-operative Alliance, and the American Federation of Labor were placed in category (a).

A Standing Committee comprised of the President of the Council and five members of the Council, who are assisted by the Assistant Secretaries-General for Economic and Social Affairs respectively was established. This Committee reviews applications for consultative status submitted by non-governmental organizations, and makes recommendations to the Council. The members of the Com-

mittee were: China, France, the Soviet Union, the United Kingdom, and the United States of America.

The Trusteeship Council. The Trusteeship Council was organized during the second part of the first session of the General Assembly. The members of the Council are as follows:

Administrating Authorities: Australia, Belgium, France, New Zealand, United Kingdom.

Non-Administrating Authorities: China, Iraq, Mexico, Soviet Union, United States.

The General Assembly decided that the Secretary-General should convoke the first session of the Trusteeship Council later than March 15, 1947.

At the first part of the first session of the General Assembly, the Government of the United Kingdom stated that it had prepared draft trusteeship agreements for the three African territories mandated to it and that these had been distributed to certain States as "directly concerned" and to certain other States "for information." The Belgian Government, at that time, also announced that a draft trusteeship agreement for its African mandated territory had been formulated, and that Belgium was prepared to start immediate negotiations with the States directly concerned. At the same time, the New Zealand Government declared that it was willing to place the mandated territory of Western Samoa, and the French Government declared that it was willing to place the mandated territories of Togoland and the Cameroons, under the trusteeship system of the United Nations.

Draft trusteeship agreements for the following mandated territories were submitted to the General Assembly during the second part of its first session: by Australia—New Guinea under C Mandate; by Belgium—Ruanda-Urundi under B Mandate; by France—Cameroons under French B Mandate, Togoland under French B Mandate; by New Zealand—Western Samoa under C Mandate; by the United Kingdom—The Cameroons under British B Mandate, Togoland under British B Mandate, Tanganyika Territory under B Mandate.

The main provisions of these draft trusteeship agreements are as follows:

(1) Definition of the boundary of each territory to be placed under the trusteeship system

(2) Designation of the administering authority of the trust territory

(3) The obligations of the administering authority under article 76 of the Charter of the United Nations (which sets forth the basic objectives of the trusteeship system).

(4) The rights of the administering authority in legislation, administration and jurisdiction; in constituting the trust territory into a customs, fiscal or administrative union with adjacent territories under the control of the administering authority; in establishing naval, military and air bases

(5) Promotion of the development of political institutions suited to the trust territory

(6) Application of the provisions of general international conventions and recommendations drawn up or to be drawn up by specialized agencies referred to in article 57 of the Charter

(7) Protection of the rights and interests of the inhabitants in land and natural resources.

(8) Equal treatment in social, economic and commercial matters for all Members of the United Nations.

(9) Promotion of the educational and cultural development of the inhabitants

(10) Ensurance of freedom of religion and freedom of speech.

(11) Annual reports to the General Assembly by the administering authority on the basis of a questionnaire formulated by the Trusteeship Council in accordance with Article 88 of the Charter.

(12) Approval of the terms of the agreement and if any alteration or amendment thereof by the General Assembly.

In accordance with Article 85 of the Charter the General Assembly approved on December 13 the terms of these eight trusteeship agreements.

In these agreements, Australia, Belgium, France, New Zealand and the United Kingdom were designated as administrating authorities.

Under Article 86 (a), Australia, Belgium, France, New Zealand and the United Kingdom are members of the Trusteeship Council.

By application of Article 86 (b), China, the Soviet Union and the United States—permanent members of the Security Council which are not administering authorities of trust territories—are also members of the Trusteeship Council.

In accordance with Article 86 (c), it was necessary, in order that the total number of members of the Trusteeship Council is equally divided between those Members of the United Nations which administer trust territories and those which do not, that two Members should be elected by the General Assembly to the Trusteeship Council.

Accordingly, the General Assembly on December 14 elected Iraq and Mexico as members of the Trusteeship Council and directed the Secretary-General to convoke the first session of the Council not later than March 15, 1947.

Under Article 73 (e) of the Charter, Members of the United Nations which have responsibility for the administration of non-self-governing territories undertake to transmit regularly to the Secretary-General statistical and other information relating to economic, social and educational conditions in such territories. In the course of the year the Secretary-General had received information from Australia, Belgium, France, the Netherlands, the United Kingdom and the United States regarding conditions in their respective non-self-governing territories.

The International Court of Justice. On February 6, 1946 the General Assembly and Security Council, voting independently, elected the following judges: for nine-year terms, Alejandro Alvarez (Chile), Jose Philadelpho de Barros Azevedo (Brazil), Jules Basdevant (France), Jose Gustave Guerrero (El Salvador), Sir Arnold Duncan McNair (United Kingdom); for six-year terms, Isidro Fabela Alfaro (Mexico), Green H. Hackworth (USA), Helge Klaestad (Norway), Sergei Borisovich Krylov (USSR), Charles de Visscher (Belgium; for three-year terms, Abdel Hamid Badawi Pasha (Egypt), Hsu Mo (China), John E. Read (Canada), Bogdan Winiarski (Poland), Milovan Zoricic (Yugoslavia).

On February 10, the General Assembly adopted a resolution instructing the Secretary-General to take the necessary steps to summon a first meeting of the Court at The Hague as soon as could be arranged, to appoint a Secretary and other temporary officers to assist the Court and to act during the period preceding the appointment by the Court of its Registrar and its officers, and to conduct preliminary negotiations with the Board of Directors of the Carnegie Foundation in order to fix the conditions on which the premises in the Peace Palace at the Hague could be placed at the Court's disposal.

On February 6, the Secretary-General wrote to the candidates who had been elected asking them whether they accepted appointment and whether they would be able to attend the first meeting of the Court at The Hague on or about April 7, 1946. Shortly afterwards, an informal meeting of those members of the Court who were available in London was held under the chairmanship of Mr. J. G. Guerrero; it was then decided that the first meeting of the Court should commence on April 3, 1946.

The Acting Secretary of the Court appointed by the Secretary-General of the United Nations, after

a preliminary visit to The Hague in the middle of February, during which he made arrangements for the coming meeting of the Court, including arrangements for the engaging of temporary staff, proceeded to The Hague in the middle of March with a small staff to prepare for the meeting.

Meantime, the United Nations' Negotiating Committee on League of Nations Assets negotiated agreements with the Carnegie Foundation at The Hague concerning the use of the Peace Palace by the International Court as from April 1, 1946.

The first meeting of the Court was held on April 3. On April 6, the Court elected Mr. J. G. Guerrero to be President and Mr. J. Basdevant to be Vice-President, and appointed Mr. E. Hambro, the Acting Secretary, to be Registrar of the Court. Subsequently, on April 18, the Court appointed M. J. Garnier-Coignet to be Deputy Registrar.

On May 3, the Court formed the Chamber for Summary Procedure provided for in Article 29 of the Statute. The following were elected: Mr. J. G. Guerrero (President), Mr. J. Basdevant, Sir Arnold McNair, Mr. S. B. Krylov and Mr. Ilsu Mo (members), Mr. Isidro Fabela and Mr. Charles de Visscher (substitute members).

An inaugural sitting of the Court was held on April 18 in the Great Hall of Justice in the Peace Palace in the presence of H.R.H. the Princess of the Netherlands and H.R.H. the Prince of the Netherlands. At this sitting, the judges (who were all present with the exception of Mr. A. Alfarez (Chile) who was unable to reach The Hague in time) made in turn the solemn declaration required under Article 20 of the Court's Statute.

The Court continued to sit until May 6. It devoted itself to a number of administrative questions and the preparation of the Rules of Court. The latter were extensively based upon the Rules of the Permanent Court of International Justice. It was generally agreed that, as the latter Rules had been adopted as recently as 1936 and represented the outcome of experience gained and had for the most part been adopted as a codification of practice, it was unnecessary to amend them.

The General Assembly (*Second Part of First Session*). The second part of the first session of the General Assembly took place in the City of New York Building from October 23 to December 15, 1946. The first part of the session dealt with initial organizational matters, but the second part considered a number of substantive issues.

Admission of New Members. The General Assembly, upon the recommendations of the Security Council, admitted Afghanistan, Iceland, Sweden and Siam to membership in the United Nations. Thus the total number of members was increased to fifty-five. The Assembly recommended that the Security Council re-examine the applications for membership of Albania, Mongolia, Trans-Jordan, Ireland, and Portugal "on their respective merits as measured by the yardstick of the Charter."

Election of Members of Councils. On November 19 the General Assembly elected Belgium, Colombia, and Syria to be members of the Security Council for a term of two years, to replace the retiring members, Egypt, the Netherlands, and Mexico.

According to the Charter, the General Assembly elects six new members of the Economic and Social Council every year. Since Belgium resigned from membership in the Council, the Assembly elected seven members. Those elected were: Byelorussia, the Netherlands, New Zealand, Lebanon, Turkey, the United States, and Venezuela.

The Assembly elected Iraq and Mexico to be members of the Trusteeship Council.

Political and Security Issues. After lengthy debate the General Assembly adopted a comprehensive resolution on regulation and reduction of armaments. In this resolution, the General Assembly:

1 Recognized the necessity of an early general regulation and reduction of armaments and armed forces,

2 Recommended that the Security Council give prompt consideration to formulating practical measures for the general regulation and reduction of armaments and armed forces;

3. Urged the expeditious fulfillment by the Atomic Energy Commission of its terms of reference;

4. Recommended that the Security Council expedite consideration of the reports which the Atomic Energy Commission will make and expedite consideration of a draft convention or conventions for the creation of an international system of control and inspection, these conventions to include the prohibition of atomic and all other major weapons of mass destruction;

5. Recommended that the Security Council give prompt consideration to practical and effective safeguards in connection with the control of atomic energy and the general regulation and reduction of armaments,

6 Recommended the establishment, within the framework of the Security Council, of an international system of control and inspection, operating through special organs, which organs shall derive their powers and status from the convention or conventions under which they are established;

7 Recommended the Security Council to accelerate the placing at its disposal of the armed forces mentioned in Article 43 of the Charter, and recommended the members to undertake the progressive and balanced withdrawal of their armed forces stationed in ex-enemy territories and the withdrawal without delay of armed forces stationed in the territories of members without their consent, and further recommended a general progressive and balanced reduction of national armed forces,

8 Called upon all members of the United Nations to render every possible assistance to the Security Council and the Atomic Energy Commission

The veto power of the permanent members of the Security Council having aroused a great deal of controversy, the General Assembly decided in a resolution to request the permanent members of the Council to make every effort to ensure that "the use of the veto power does not impede the Security Council in reaching decisions promptly."

The General Assembly resolved that the Franco regime be debarred from membership in international agencies established by or brought into relationship with the United Nations and that all Members of the United Nations immediately recall from Madrid their ambassadors and ministers accredited there.

In another resolution the General Assembly declared that the treatment of Indians in South Africa should conform to provisions of the Charter and requested the Governments of India and the Union of South Africa to report at the next session of the Assembly the measures adopted to this effect.

Economic and Social Problems. The Assembly amended and approved the Constitution of the International Refugee Organization which was recommended by the Economic and Social Council, and authorized the establishment of a Preparatory Commission of IRO and adopted a provisional budget of IRO for the first financial year.

The Assembly urged all members of the United Nations to accept the Constitution of the World Health Organization and authorized two loans for the financing of the Interim Commission of WHO in 1946 and 1947.

The Assembly recommended that the Economic and Social Council give favorable consideration to the establishment of an Economic Commission for Europe and an Economic Commission for Asia and the Far East.

The Assembly approved the creation of an International Children's Emergency Fund.

The Assembly instructed the Economic and Social Council to undertake the convocation of an International Conference on Freedom of Information.

Trusteeship and Non-Self-Governing Territories. The General Assembly approved eight trusteeship agreements and elected two members of the Trusteeship Council.

The Union of South Africa had proposed to incorporate the mandated territory of Southwest Africa into the Union. The General Assembly in a resolution declared that the annexation of any mandated territory by a mandatory Power is inconsistent with the principles of the Charter which provides for the progressive development of peoples in trust territories toward self-government or independence; rejected proposal for the incorporation of the territory of Southwest Africa in the Union of South Africa; and requested that the Government of the Union of South Africa submit to the Assembly a trusteeship agreement for the territory of Southwest Africa.

The Assembly recommended that Members which administer non-self-governing territories convene conferences of representatives of non-self-governing peoples in order that the wishes and aspirations of such peoples may be expressed.

The Assembly invited Members transmitting information under Article 73 (e) to send to the Secretary-General by June 30 each year the most recent information at their disposal; recommended that such information should be summarized, analyzed and classified by the Secretary-General.

Administrative and Budgetary Matters. The General Assembly on December 14 decided that the first annual budget (1946) of the United Nations should be US $19,390,000, and the second annual budget (1947) US $27,740,000; and that the working capital fund should be maintained for 1947 at the amount of US $20,000,000.

The Assembly adopted a scale of assessment for the budgets and the working capital fund. According to this scale, the United States shall contribute 39.89 per cent, the United Kingdom 11.98 per cent, the Soviet Union 6 62 per cent, France 6.30 per cent, China 6.30 per cent, India 4.09 per cent, Canada 3.35 per cent of the total.

Legal Matters. The General Assembly established a committee of sixteen members to study the methods by which the General Assembly should encourage the progressive development of international law and its eventual codification. The Assembly affirmed the principles of international law recognized by the Charter of the Nuremberg Tribunal and the judgment of the Tribunal, and affirmed that genocide is a crime under international law and invited Members to enact the necessary legislation for the prevention and punishment of this crime.

In accordance with a recommendation of the Security Council, the General Assembly resolved that Switzerland should become a party to the Statute of the International Court of Justice on the date of the deposit with the Secretary-General of an instrument containing (a) acceptance of the provisions of the Statute; (b) acceptance of the obligations under Article 94 of the Charter; and (c) an undertaking to contribute to the expenses of the Court.

Headquarters. On December 10 Mr. John D. Rockefeller, Jr., offered to give to the United Nations a sum of US $8,500,000, on certain terms and conditions, to make possible the acquisition of a tract of land in New York City. The General Assembly decided on December 14 to accept "with a feeling of sincere gratitude" Mr. Rockefeller's offer, and resolved that the permanent headquarters of the United Nations "shall be established in New York City in the area bounded by First Avenue, East 48th Street, the East River and East 42nd Street."

The Secretariat. The Secretariat is headed by the Secretary-General, immediately under whom there are eight Assistant Secretaries-General. The Secretariat comprises an Executive Office of the Secretary-General and eight departments: Department of Security Council Affairs, Department of Economic Affairs, Department of Social Affairs, Department of Trusteeship and Information from Non-Self-Governing Territories, Department of Public Information, Legal Department, Conference and General Services, and Administrative and Financial Services.

Trygve Lie is the Secretary-General of the United Nations. A. A. Sobolev is Assistant Secretary-General in charge of Security Council Affairs; David Owen, Assistant Secretary-General in charge of Economic Affairs; Henri Laugier, Assistant Secretary-General in charge of Social Affairs; Victor Chi-Tsai Hoo, Assistant Secretary-General in charge of Trusteeship and Information from Non-Self-Governing Territories; Benjamin Cohen, Assistant Secretary-General in charge of Public Information; Ivan Kerno, Assistant Secretary-General in charge of the Legal Department; Adrian Pelt, Assistant Secretary-General in charge of Conference and General Services; John B. Hutson, Assistant Secretary-General in charge of Administrative and Financial Services; and Andrew W. Cordier, Executive Assistant to the Secretary-General. As of December 1946, the total staff of the Secretariat numbered approximately 3,000.

The Executive Office of the Secretary-General assists the Secretary-General in his relationships with Members and with the organs of the United Nations, with specialized agencies and non-governmental organizations, and in co-ordinating the activities of the Departments of the Secretariat affecting such relationships.

The Department of Security Council Affairs serves the Security Council in the fulfillment of its continuous functions under the Charter; assists the Secretary-General in the performance of his responsibilities under Article 99 of the Charter; provides documentation for the General Assembly when it considers questions relating to the maintenance of peace and security.

The Department of Economic Affairs serves the Economic and Social Council, certain of its Commissions and Committees, and the Second Committee of the General Assembly, with respect to their economic functions. The Department provides economic studies and reports for economic publications of United Nations; technical assistance to all units of the Secretariat requiring economic or statistical information; and serves as liaison with specialized agencies and non-governmental organizations concerned with regional or international economic affairs

The Department of Social Affairs serves the Economic and Social Council, certain of its Commissions and Committees, and the Third Committee of the General Assembly with respect to their functions in the fields of science, education, culture, social questions, demography, human rights, refugees and displaced persons, narcotic drugs and public health; provides studies and reports in the fields of its competence for publications of United Nations; provides liaison with specialized agencies and non-governmental organizations concerned with these questions in their regional or international respects.

The Department of Trusteeship and Information from Non-Self-Governing Territories serves the

Trusteeship Council and the Fourth Committee of the General Assembly; informs the Secretary-General of problems and developments in this field; supplies other organs of the United Nations and departments of the Secretariat with information concerning trust territories, non-self-governing territories, and non-security aspects of strategic areas; and provides documentation for the General Assembly when it considers questions arising under Chapters XI, XII, and XIII of the Charter.

The Department of Public Information advises the Secretary-General on all phases of information policy; develops facilities and services for press, radio, films, and other information media, and establishes and maintains informational relationships on an international basis with governmental and non-governmental organizations, at headquarters and overseas.

The Legal Department advises the Secretariat and other organs of the United Nations on legal and constitutional questions; encourages the progressive development of international law and its codification; and maintains liaison with the International Court of Justice.

The Department of Conference and General Services makes arrangements for meetings of the General Assembly, Councils, Commissions, Committees, and special conferences held under the auspices of the United Nations; provides general business management services for United Nations; provides necessary services for the Headquarters Commission, and provides the administrative channel for communications and liaison between the headquarters organization and the temporary Geneva Office, the temporary London Office, and other temporary conference service offices established away from headquarters.

The Department of Administrative and Financial Services plans and executes the personnel, budgetary and fiscal programs of the United Nations; keeps the Secretary-General informed of problems and developments in these fields requiring his attention; provides staff assistance to the Secretary-General and to the Assistant Secretaries-General in administrative and organization planning; provides data required by the General Assembly, Councils and Committees with respect to administrative, financial and budgetary questions; maintains relationships with all Departments of the Secretariat and with the Registrar of the International Court of Justice on administration, budgetary and financial questions; advises the Secretary-General on proposed programs of the organization prior to their adoption with respect to their personnel, budgetary and financial implications; is responsible for arranging with Member Nations for the payment of their contributions.

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UNITED NATIONS RELIEF AND REHABILITATION ADMINISTRATION (UNRRA). Organized as the first service agency of the United Nations on November 9, 1943, UNRRA included forty-eight governments in its membership in 1946. While all members participated in the policy-making council, nine governments—the United States, the United Kingdom, the Soviet Union, China, France, Canada, Australia, Brazil, and Yugoslavia—composed the Central Committee, which was empowered to make emergency policy decisions between sessions of the Council. A Director General, assisted by a staff of 12,000 persons, was vested with executive responsibility. Mr. Herbert H. Lehman, who served as Director General from the inception of the administration until his resignation in March, 1946, was succeeded by Mr. Fiorella H. LaGuardia. On January 1, 1947 Mr. LaGuardia was succeeded by Maj. Gen. Lowell W. Rooks.

The purpose behind the organization of UNRRA was to provide relief and rehabilitation to the peoples of European and Far Eastern liberated territories, concentrating primarily on assisting those nations without adequate foreign exchange resources to finance their own relief imports. This assistance consisted of relief supplies—food, clothing, fuel, medicines; relief services—health and welfare services, repatriation of displaced persons; and rehabilitation supplies and services—seeds, fertilizers, insecticides, basic farm tools, repair parts for the rehabilitation of industry, transportation, and other public utilities, and raw materials. Each member nation, not occupied by the enemy, was asked to contribute one percent of its national income for the year ending June 30, 1943, so that the supplies and services could be financed. Later, it was asked to make a second contribution in the same amount. Meanwhile, all countries, invaded and uninvaded alike, contributed proportionately to UNRRA's administrative budget. As of September 30, 1946, the total operating and administrative contributions authorized by UNRRA's member governments amounted to $3,693,509,914. The total amounts subscribed by the three largest contributors were: United States, $2,700,000,000, United Kingdom, $624,650,000; and Canada, $138,738,739.

After a period of planning and training, UNRRA took over relief operations from the military in Greece on April 1, 1945, and in Yugoslavia on April 15, 1945. V-E Day paved the way for increasing supplies and shipping to meet the needs of liberated countries in Europe. V-J Day made possible relief and rehabilitation operations on a global basis. General relief aid was provided by UNRRA during 1946 to the following countries: Albania, Austria, the Byelorussian Soviet Socialist Republic, China, Czechoslovakia, the Dodecanese Islands, Greece, Italy, Poland, the Ukrainian Soviet Socialist Republic, and Yugoslavia. Programs of limited emergency aid were in effect on behalf of Finland, Hungary, and the Philippines, and a special program was being operated to help Ethiopia in the fields of medicine, welfare, and transport.

In 1946, UNRRA personnel assisted the military in the care of upwards of a million displaced persons, and administered hundreds of displaced persons assembly centers. However, overall responsibility for the displaced persons operations in Germany and Austria belonged to the military authorities, who provided the basic supplies and transportation.

The acceleration of UNRRA's operations was borne out by the following cumulative statistics of supplies shipped overseas:

End of first quarter, 1945: 37,000 long tons. End of second quarter, 1945: 1,101,000 long tons. End of third quarter, 1945: 2,126,000 long tons. End of fourth quarter, 1945: 4,032,000 long tons. End of first quarter, 1946: 8,252,000 long tons. End of second quarter, 1946: 12,855,000 long tons. End of third quarter, 1946: 16,633,000 long tons. End of fourth quarter, 1946: 19,257,970 tons.

Operations in 1946 were seriously affected by the critical world food shortage. UNRRA was unable to obtain sufficient allocations of bread grains to meet its minimum overseas commitments during the first half of the year. The fourth session of the UNRRA Council, held in March, 1946, underscored the necessity of the supplying and receiving countries to take all possible measures to conserve

and make available more food to avert widespread famine in Europe and the Far East. Mr. LaGuardia, elected Director General at this session, devoted most of his time in the succeeding months to overcoming the food shortage. He also called attention to the necessity of finding a permanent solution to the displaced persons problem in Europe.

Extraordinary efforts on the part of the major wheat-growing countries and the arrival of harvests in liberated areas materially eased the food crisis in the last half of 1946, although UNRRA officials warned that the danger of hunger would remain at least through 1947.

The fifth session of the UNRRA Council was held at Geneva, Switzerland, in August, 1946, with the major purpose of defining a policy regarding the termination of the organization and the transfer of its remaining functions to permanent international bodies. Among the resolutions adopted were:

1. The transfer of UNRRA's major health activities to the World Health Organization or its Interim Commission.

2. The authorization of the transfer to the United Nations of such social welfare functions as the United Nations desire to undertake.

3. The continuation of displaced persons operations until undertaken by the International Refugee Organization, or by any other appropriate body, provided that none of these operations were to be continued by UNRRA after June 30, 1947.

4 The rehabilitation of children and adolescents of liberated countries by the creation of an International Children's Fund to which such assets would be transferred as the Central Committee might determine to be available after completion of the work of UNRRA.

5. The recommendation that the General Assembly of the United Nations establish the appropriate agency, or agencies, to review the needs in 1947 for financing urgent imports of the basic essentials of life, after the termination of UNRRA programs, and to recommend the financial assistance required to meet such future relief needs. During October, 1946, UNRRA began tapering off its operations by reducing activities and personnel. Preparations were made for the transfer of UNRRA's functions to permanent international organizations. Director General LaGuardia submitted a detailed report to the UN on the progress made toward economic rehabilitation in the countries assisted by UNRRA. The report pointed out that "By the end of its operations, UNRRA will have delivered about three and a half billion dollars worth of supplies (including freight). This is more than three times the value of relief after World War I. . . ." However, the report warned that after UNRRA's program of operations was completed in 1947, the countries of eastern and southern Europe, and China, would face uncertain and difficult economic conditions.

UNITED SERVICE ORGANIZATIONS, Inc. (USO). An organization formed February 4, 1941, to provide off-duty recreational and other services to the men in the armed forces, with the following member agencies: The Young Men's Christian Association, The National Catholic Community Service, The Salvation Army, The Young Women's Christian Associations, The National Jewish Welfare Board, and the National Travelers Aid Association (qq.v. under SOCIETIES). USO is supported entirely by public subscription. In 1941 and 1942 it obtained $14,353,666 and $32,586,501 respectively through its own campaigns. In 1943, 1944, and 1945, with other major war-related agencies, it was a member of the National War Fund (q.v.) which conducted a nationwide campaign. The National War Fund goal in 1945 was $115,000,000, and USO's share of the total was $52,096,500. In 1946 expenditures were $38,338,000.

The groups served are men and women of the armed forces. Members of the Women's Army Corps and women's auxiliaries of the Navy, Coast Guard, and Marines are admitted to USO clubs and other service units on the same basis as men in uniform. Services are also extended, as required, to Army and Navy nurses, merchant seamen and wives of service men. Industrial workers in certain areas were also served. There are USO operations in the Continental United States, in bases elsewhere in the western hemisphere, and in the Philippine Islands. USO-Camp Shows visited American troops in all combat zones, as well as throughout the western hemisphere. More than one billion people have been served by USO since its inception. The USO came into being at the time the nation was preparing its defenses under the threat of war. Originally it was planned to operate 341 clubs in 200 communities. When America entered the war December 7, 1941, USO had 496 clubs and other centers in operation. With the tremendous expansion of our armed forces USO services also had to expand rapidly; USO operations totaled 3,040 in March, 1945, but decreased after the end of the war to 2,261 on Nov. 15, 1945.

At the end of 1946, the USO operated 298 clubs and 63 lounges. Attendance totals for 1946 were: camp shows, 22,000,000; clubs, 132,500,000; lounges, 9,500,000.

USO officers in 1946 were: Dr. Lindsley F. Kimball, President; John D. Rockefeller, Jr., Honorary Chairman; Walter Hoving, Chairman of the Board, Harper Sibley, Vice-Chairman of the Board; C. Frank Kramer, Jr., Secretary; and John F. Hickey, Treasurer. National Headquarters are in the Empire State Building, 350 Fifth Avenue, New York 1, N. Y.

UNITED STATES. The area of the United States proper, or the 48 States and the District of Columbia, is 3,022,387 square miles; this excludes inland waters having an area of 45,259 square miles. The noncontiguous lands subject to the authority of the United States (Alaska, Hawaii, the Panama Canal Zone, Puerto Rico, Guam, the Virgin Islands, and American Samoa) comprise 596,006 square miles.

AREA AND POPULATION OF UNITED STATES, ITS TERRITORIES AND INSULAR POSSESSIONS

Political Division	*Area Sq miles*	*Population (1940 census)*	*Capital*
United States	3,022,387	131,669,275	Washington
Alaska [a]	586,400	72,524 [c]	Juneau
Hawaii [a]	6,419	423,330	Honolulu
Puerto Rico	3,435	1,869,255	San Juan
Guam	206	22,290	Agana
Samoa, American	76	12,908	Pago Pago
Panama Canal Zone [b]	553	51,827	Balboa Heights [d]
Virgin Islands	133	24,889	Charlotte Amalie
Totals	3,622,795	134,265,231	

[a] Territory [b] Leased from the Republic of Panama in perpetuity. [c] Census taken Oct 1, 1939 [d] Office of the Governor.

Note The United States also possesses, or claims possession of, the following Pacific Islands Baker, Howland, and Jarvis Islands, fringing the equator in mid-Pacific about 1,000 miles S S W from Honolulu, Johnston Island (q v), Midway Islands (q v), Palmyra Islands (q v), and Wake Island (q v) Canton Island (q v) and Enderbury Island are under joint Anglo-American administration.

The population of continental United States (Sixteenth Census) April, 1940, was 131,669,275. On Jan. 1, 1947, the population was estimated by

the Bureau of the Census to be 142,656,000. On October 1, 1946, the population, excluding armed forces overseas, was 140,984,000. See VITAL STATISTICS. For aliens, see IMMIGRATION. For populations of individual States, see STATES OF THE UNITED STATES.

Agriculture. See AGRICULTURAL COOPERATION; AGRICULTURE; AGRICULTURE, U.S. DEPARTMENT OF.

Commerce. See BUSINESS REVIEW; CUSTOMS, BUREAU OF; TRADE, FOREIGN.

Communications. See COMMUNICATIONS, ELECTRICAL; FEDERAL COMMUNICATIONS COMMISSION; POST OFFICE; RADIO BROADCASTING.

Defense. See the articles listed under WAR; MILITARY PROGRESS; NAVAL PROGRESS; COAST GUARD, U.S.

Education. See EDUCATION; SCHOOLS; UNIVERSITIES AND COLLEGES.

Finance. See PUBLIC FINANCE; TAXATION.

Judiciary. See LAW.

Manufacturing. See BUSINESS REVIEW.

Mineral Production. See BUSINESS REVIEW; MINERALS AND METALS; MINES, BUREAU OF; articles on leading minerals.

States and Territories. See ELECTIONS; STATE LEGISLATION; STATES OF THE UNITED STATES.

Transportation. See AERONAUTICS; MARITIME COMMISSION; MOTOR VEHICLES; RAILWAYS; ROADS AND STREETS; WATERWAYS.

Events, 1946. *The Year of Transition.* The first full year of peace after the conclusion of the greatest of wars, 1946 was for the United States as for all the world, a year of transition. The bloody strife of the battlefield was ended; it left in its wake a residue of conflict that pervaded every phase of the course of readjustment. The throes of transition appeared everywhere as the United States passed through the twelve months described by President Truman as "From War to Peace—the Year of Decision."

The people of the United States, in the first postwar year, groped for a return of the political, economic, and social stability, for the security, progress, and peace that had disappeared years back with the outbreak of the Second World War. Progress toward the goal was made, but every step was accompanied by a central core of conflict —the struggle between right and left.

In world affairs, the goal laid down by President Truman was "a lasting peace, with greater freedom and security for mankind in our country and throughout the world." Through the year, however, the readjustment toward a permanent peace was marked by distrust and suspicion, a constant and deep division that permeated the relations between the two great powers left preponderant by the war —the United States and the Union of Soviet Socialist Republics. On many of the basic issues of peace, of which the foremost was a solution of the momentous problem of controlling the atom bomb and other weapons, the ideological differences between capitalist America and communist Russia were numerous and far reaching. The clashes between the two countries carried over to internal affairs where it caused wide debate and a schism in the ranks of the Administration.

Nevertheless, the potentialities of atomic warfare, displayed by the United States in experiments in the peaceful waters of Bikini lagoon in the Pacific, and the steadily developing concept of countries working toward peace through world organization brought this country closer to its international objective. America's power and wealth were thrown in support of the amity of nations operating through the structure of the United Nations. The United Nations emerged as a reality among governments, with a burgeoning organization, membership, and influence. By the end of the year it had established itself in its permanent capital in the heart of New York City, and showed promise of fulfilling the aims of America's foreign policy by taking an ever-expanding role for peace in the affairs of the Atomic Age.

The strength of America's participation in world affairs hinged on its domestic welfare and in 1946 the United States, the fountainhead of world economic currents, was itself torn internally by the struggle of transition from a war economy to a peace economy. In the process of painful readjustment from a controlled economic system to "free enterprise" there occurred great industrial unrest and economic confusion that was accompanied by a political upheaval at the polls. Conflict between the industrial right and the laboring left brought forth the greatest and most crippling strikes in the nation's history. As prices mounted steadily higher and inflation reached its peak, as shortages appeared and became aggravated, the issue of economic and production controls versus a "free" economy was fought out in the councils of Government and the mid-term elections.

In 1946, said President Truman, "we lay the foundation for our economic structure that will have to serve for generations." Despite the plethora of strikes, despite the zooming prices and an economic situation in which no one blinked at $5,000 mink coats and talk was heard of a "basic" diamond necklace, the country made great strides in the completion of its domestic reconversion. Placing a seal on the conclusion of an era of "controlled economy" was an action by the Chief Executive at year's end in proclaiming the termination of hostilities in World War II. Although the action did not end the states of emergency proclaimed by the late President Roosevelt or the state of war itself, it emphasized the trend toward the relaxation of wartime powers by terminating the operations of a number of emergency statutes, including those governing the seizure of industrial plants and imposing special luxury and excise taxes. "The time has come," said the President, "when such a declaration can properly be made and it is in the public interest to make it."

The action came as the country appeared to be emerging from the throes of convalescence. There was virtually full employment, 6,000,000 more workers than when the ending of the war with Japan came and in the neighborhood of 15,000,000 more than in the prosperous year of 1939. The millions of discharged service men and women had largely been absorbed into the labor force, though many were taking advantage of veterans' benefits to continue learning and the population of American colleges bulged to 2,000,000, double that of the decade before.

The Civilian Production Administration found the country was "virtually out of the reconversion woods." The production of consumer goods was attaining and surpassing prewar rates in answer to what seemed to be an insatiable demand for automobiles, refrigerators, washing machines, and thousands of other articles. Business activity, sales, and profits were above the levels of the best prewar years. Consumers spent a record total of $127,000,000,000 for goods and services during the year.

There was ready money for spending and it was spent freely. Controls became unpopular and the public demonstrated at the polls and in countless other ways its resentment at shortages of meats,

fats and oils, soap, and other items. Mobs of women no longer mobilized at year's end to obtain, at risk of life and limb, a pair of nylon hose. But feminine noses were turned up at silk stockings at $4.00 a pair and similar consumer resistance kept mounting as prices advanced. Toward the end of the year the price level appeared to have reached its peak and the cost of food and of many non-durable goods edged downward.

In a year of extremes, fires, airplane crashes, and railroad wrecks took an unusually heavy toll. Fires took more than 10,000 lives and caused more than $560,000,000 worth of property damage. Most horrible were the hotel fires, of which the flames that destroyed the Winecoff Hotel in Atlanta, Georgia, with a loss of 123 lives, represented the greatest toll of persons ever to perish in a hotel fire in this country.

Foreign Policy. In his "State of the Union" message to Congress as the year began, President Truman declared "the great and dominant" objective of American foreign policy was "to build and preserve" a just and permanent peace by using all its influence "to foster, support, and develop" the United Nations and to obtain "genuine understanding and active cooperation" among the most powerful nations.

At the beginning of 1946, however, Secretary of State James F. Byrnes was far from attainment of this goal; instead there was diplomatic conflict everywhere. Above all appeared the primary task of bridging the gap between the United States and Russia to establish the necessary firm basis for peace and security. The principal directions of this country's policy were in the completion of peace treaties for the Axis satellites and the strengthening of the United Nations as an effective world organization.

In September, there was affirmation of the "firm" policy which was attacked by Henry A. Wallace, former Secretary of Commerce. In a speech at Stuttgart urging establishment of a centralized German regime, Mr. Byrnes declared:

"We thought we could stay out of Europe's wars and we lost interest in the affairs of Europe. That did not keep us from being forced into a second World War. We will not again make that mistake. We intend to continue our interest in the affairs of Europe and of the world."

In the early fall, there were hints of a shift toward a more conciliatory attitude on the part of Russia that became more pronounced at the meetings of the Foreign Ministers and the United Nations General Assembly in New York in December.

By the end of the year the Foreign Ministers had completed treaties for the German satellite countries, reached general agreement on Trieste and the Danube and paved the way for treaties for Germany and Austria. In its direct international relationships, particularly vis-a-vis Russia, the United States' foreign policy had evolved toward a "modus operandi" that combined "patience and firmness" without bringing on any direct tests of power between the East and the West.

Also on the positive side of the ledger for 1946 in foreign affairs were these actions: intercession of the United States, through General George C. Marshall, special envoy, preserved a precarious balance between the contending forces in China and by extension in Asia itself, the world monetary organization began functioning; the commissions of the United Nations started grappling with the underlying causes of war; the United States made a large contribution to avert world-wide starvation. Finally, national unity, crystallized in the Wallace episode, appeared in the ascendancy on foreign policy and the Republican party, preparing to assume control of the legislative branch of the Government, gave signs of forsaking its isolationist past and joining the Democratic party in a firm resolve to keep America's voice strong in international affairs.

Atomic Energy. The United States indicated early in 1946 its awareness of the potentialities of the atomic bomb and its accompanying Pandora's box of man-made horrors At the meeting of the United Nation's General Assembly in January, Secretary Byrnes offered a resolution for creation of an international atomic energy commission which was unanimously adopted. See ATOMIC ENERGY; UNITED NATIONS.

National Defense. Closely integrated to the course of the country's foreign policy and atomic developments were the year's events in the field of national defense, for the voice of the United States, in a period of transition, was gaged to a large degree by its military might.

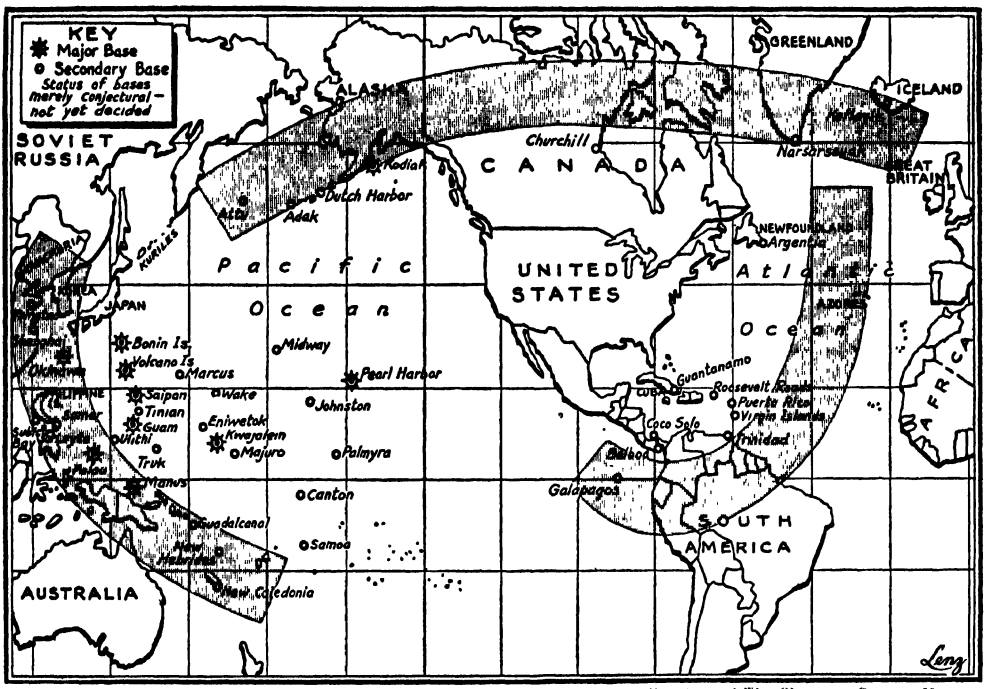
"We still have the task," said the Chief Executive, "of clinching the victories we have won, of making certain that Germany and Japan can never again wage aggressive warfare, that they will not again have the means to bring on another world war. The performance of that task requires that, together with our allies, we occupy the hostile areas, complete the disarmament of our enemies and take the necessary measures to see to it that they do not rearm."

To individual GI's, the President's words registered little in relation to the desire to go home. A spate of "send-us-home" movements developed after the turn of the year. President Truman asserted that discharges were proceeding "with commendable efficiency" although the "critical need for troops has begun to slow down" demobilization. General Dwight D Eisenhower, Chief of Staff, ordered the return home without delay of all men for whom there was no real military need. Nevertheless 20,000 GI's protested in Manila against the demobilization slow-down and demonstrations mounted abroad and at home, although General Eisenhower felt that the actions were blinding troops to the "real importance" of occupation duty. Congress, inclined to be sympathetic to the protests, shifted somewhat when the military warned that reduction in personnel depended on replacements through draft legislation, and Secretary Byrnes outlined to legislators a pessimistic picture of world conditions. With military leaders standing firm, the movement lost its momentum and gradually merged into the larger question of extension of Selective Service. By the end of the year, moreover, of the 12,000,000 men and women serving in the Army and Navy, about 10,500,000 had been demobilized.

In March, to meet the continuing need for replacements in the armed forces, President Truman and the military chieftains called for an extension of Selective Service. The move encountered much opposition from Congressmen who opposed a peacetime draft and felt that sufficient volunteers could be recruited or did not relish voting on the measure in an election year.

Selective Service was twice extended when it was on the point of expiration. A stop-gap measure continued the draft from May 15 to July 1 and a bill enacted June 29 extended it through 1947 after a bitter struggle between the Senate and the House over its provisions.

The compromise version finally approved carried these provisions:



Courtesy of The Christian Science Monitor

SHADED ARCS SHOW APPROXIMATE LINE OF THE U.S.'s DEFENSES

Extension of the draft to March 31, 1947 or an earlier date specified by concurrent resolution of Congress.

Men of 19 to 44 subject to induction with service limited to 18 months. In practice none over 29 years of age was called.

No fathers were to be inducted, with those with six months' service to be discharged

Number of men in service as of July 1, 1947 was set at 1,070,000 for the Army, 558,000 for the Navy, and 108,000 for the Marine Corps.

Supported by extension of the draft, the military received many volunteers and was able to grant draft holidays for long stretches during the year.

A companion measure to the extension of Selective Service also stimulated volunteering by boosting the rates of pay in the armed services The increases in monthly Army base pay ranged from 50 percent for privates to 10 percent for general officers with the same rates for corresponding ranks in the Navy.

After receiving from a mixed board of officers and enlisted personnel recommendations for modification of the Army's "caste" systems, Secretary of War Robert P. Patterson ordered relaxation of some of the "caste" regulations, such as the requirement of the salute off Army posts. See MILITARY PROGRESS.

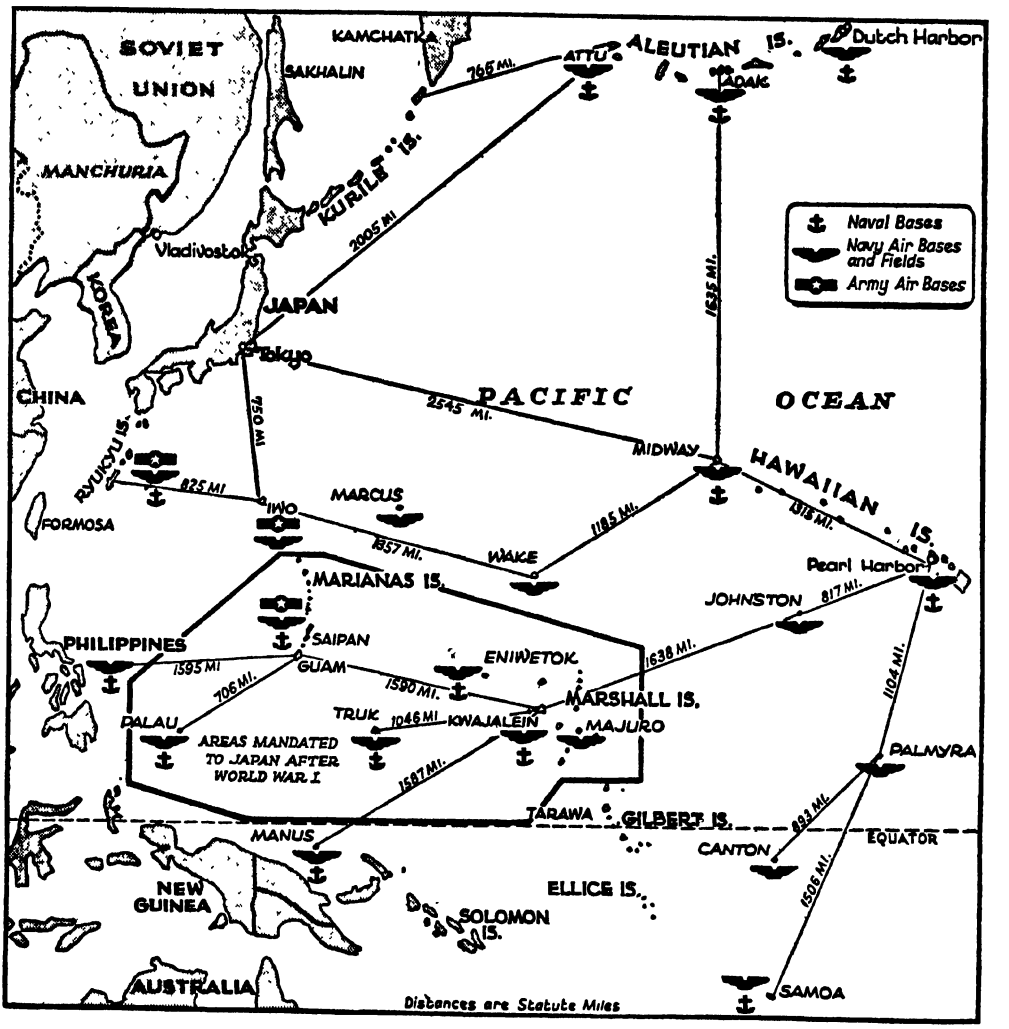
Little headway was made toward the determination of a definitive, permanent military policy for the United States. President Truman called upon Congress to enact a program of universal training but the proposal failed to reach the floor of either Congressional house. The War Department proposed a number of programs without arousing any legislative enthusiasm. At the close of the year the Chief Executive renewed his advocacy of such a program and named a committee of prominent citizens to study it.

The President succeeded, after extended submerged opposition from the Navy, in obtaining the reluctant agreement of the heads of the service departments for a 12-point plan for unification of the armed services. Announced at the middle of the year, the plan included a proposed single Department of National Defense with a civilian Secretary; three coordinated services—Army, Navy and Aviation; joint chiefs of staff; a central intelligence agency, and a single procurement and supply agency.

An abortive unification measure was reported favorably by the Senate Military Affairs Committee. Referred to the Naval Affairs Committee for further hearings, the bill met stiff opposition from Navy spokesmen. Neither house of Congress gave consideration to merger legislation and efforts to press it were abandoned.

However, Congress did enact the Terminal Leave Pay bill, with virtually unanimous backing in both houses. The measure was designed to equalize terminal-leave benefits of enlisted personnel with those received by officers, who had been paid upon discharge for accumulated furlough time up to 120 days. It granted enlisted men compensation for an equal amount of unused furlough time and provided for cash payments for claims of less than $50 and five-year, non-transferrable bonds of 2½ percent interest for claims of more than $50 It was estimated that the law would cost the Government $2,500,000,000. (See map, page 689.)

Strikes. On the domestic scene, the struggle between management and labor dominated the year's developments, as the cost-of-living mounted and unions went on strike for higher wages to counterbalance the skyrocketing prices. Although national productivity was high and the country's industrial mechanism was booming, the absence of industrial peace retarded the attainment of full-scale reconversion and gave impetus to wage-price spiralling. The failure of management and labor to resolve their disagreements in a peaceful manner and reduce the number and duration of strikes, par-



Courtesy of The New York Times

PACIFIC BASES UNDER DISCUSSION

ticularly in essential industries, was the country's major concern in 1946.

Over the year, 4,750,000 workers were on strike and the time lost amounted to 110,700,000 man-days of work—a record loss, compared with a previous peak of 38,025,000 man-days lost in 1945. To be sure, the strikes achieved degrees of success, for many workers gained increases ranging from 18 to 22 percent, though the gains were nullified considerably by subsequent price increases.

During the year there were these major strikes: automobile (November 21, 1945–March 13, 1946); electrical equipment industries (January 15–March 8); the meat-packing houses (January 16–26); the steel industry (January 21–February 17); the soft coal mines (April 1–May 29 and November 20–December 7); the railroads (May 23–25); and the maritime industry (September 5–20). In addition, there were scores of strikes, such as the truck and tugboat strikes in New York and utility stoppages in a number of cities, which directly affected public health and welfare.

As the year opened, the Congress of Industrial Organizations was "carrying the ball" for wage increases. A strike of 200,000 United Auto Workers (CIO) had closed production of the key General Motors Corporation. In close succession came a stoppage of packing-house workers, precipitating a nation-wide shortage of meat; a tie-up of production of electrical equipment for two months; a four-week strike of steel workers, plunging steel to the lowest level in 50 years.

President Truman developed a new wage-price formula in February permitting price and pay increases as a means of settling the strikes. Wages rose about 18½ cents an hour. The steel operators were granted an increase of $5 00 a ton, despite existing price ceilings, precipitating a "bulge" in the Administration's "hold-the-line" price policy

With the first round of wage increases led by the CIO hardly over, John L. Lewis, chieftain of the United Mine Workers, who had rejoined the American Federation of Labor, pulled 400,000 workers from the soft coal pits. The strike lasted 45 days, during which the Government seized the mines, froze coal stocks, ordered a reduction in passenger service by coal-burning railroads, imposed a "dim-out" in Eastern states, and ordered an embargo on all but essential freight shipments. The UMW signed a new contract with the Govern-

ment providing for an 18½-cent wage increase and a royalty payment for the union's welfare fund.

Toward the end of May, after weeks of fruitless preliminary negotiations, two railroad unions, the Brotherhood of Railroad Trainmen and the Brotherhood of Locomotive Engineers, went out on a strike which paralyzed the country's rail transportation. The railroads were seized and the President threatened to call out the Army. After two days, while the President was before Congress appealing for emergency powers to cope with the strike, settlement was reached and the rail tie-up was called off.

The frequency of strikes, retarding reconversion and demonstrating the ability of key unions to cripple the whole industrial system, aroused in Congress demands for legislation restraining labor and these were embodied in the so-called Case bill. There was considerable wrangling between the House, which approved a stringent version, and the Senate, which favored a milder measure. Following the rail strike, the Senate swung toward the House view and Congress sent to the President a Case bill providing for the control of strikes by these means. a Federal mediation board empowered to intervene in major labor disputes and forbid strikes or lockouts for 60 days; civil suits for breach of contracts by either side; a ban on secondary boycotts by labor, and related labor-curbing provisions.

The Case bill, which aroused a storm of opposition from labor was vetoed in June by the President in a message stating it by-passed the underlying causes of labor strife, would cause an increase in disputes, and laid down severer penalties for workers than for employers. "Strikes against private employers cannot be ended by legislative decree," Mr Truman maintained "Men cannot be forced in a peacetime democracy to work for a private employer under compulsion." The veto was sustained by the House by five votes. See LABOR CONDITIONS.

Following the termination of price and wage controls, John L. Lewis made a bid late in the year to take the lead in wage increases. He demanded a new soft coal contract from the Government. Failing to receive it, on November 20 he defied a court order barring a work stoppage and ruled no contract existed. According to their traditional pattern of "no contract, no work," the miners left the pits. Mr. Lewis and the UMW were adjudged in contempt of court and fined a total of $3,500,000, but the case was appealed to the Supreme Court and the strike continued. The Government stood resolute and threw its full power into the battle. As in the earlier coal strike drastic conservation measures were imposed to guard an alarmingly small coal supply and an appeal directly to the miners was planned by the President. Facing irreparable loss, the UMW leader capitulated on December 7, just five years after Pearl Harbor and directed his men to return to work until March 30, 1947. Although Mr. Lewis backed down, the issues raised by his action remained to be fought.

Two new weapons were brought into play by labor toward the close of the year. The CIO, planning a second round of wage increases, shunned strikes and sought persuasion. The organization adopted a report from an outside economist, Robert Nathan, former assistant director of the Office of War Mobilization and Reconversion, in which it was contended that industry generally could raise wages 25 percent out of profits without raising prices. The report became the basis for contract negotiations by CIO unions.

The other evolved from a Supreme Court decision in the case of a Michigan pottery plant, directing payment of back pay for time spent in "on-the-premises" activity although not actually spent "at the bench." The time spent in such "portal-to-portal" or "gate-to-gate" activity became the basis for suits by unions for back compensation. During the final months of 1946, the suits mushroomed and mounted to billions of dollars claimed in retroactive pay.

Stabilization. While labor was exerting pressure upon wages, industry was simultaneously pressing for the elimination of price controls. When Congressional committees, early in February, started hearings on the extension of the Price Control Act, destined to expire June 30, the action touched off a powerful campaign by virtually all segments of industry, business, and agriculture to abolish or limit drastically the operations of the Office of Price Administration.

The year had begun with practically all price controls still in effect, though rationing had been almost completely eliminated. Living costs had risen only fractionally during the war and through V-J Day In February, however, a dent in the cost-of-living line that had been held since 1943 developed when the President announced a new wage-price policy, under which ceiling prices were raised to reflect higher labor and material costs resulting from widespread wage increases. The action caused the OPA to grant many industry-wide increases, to change its required absorption by sellers of cost rises, and to pass more and more of these on to consumers

Although the war was over, proponents of price control, noting the reservoir of pent-up consumer demand, and the great amounts of savings and money in circulation, urged extension of OPA to combat a dangerous inflationary situation. Chester Bowles, former OPA Administrator and Director of Economic Stabilization, was the protagonist of the anti-inflation campaign to check a "boom and bust" cycle.

Accumulated resentment over wartime controls was aired in Congress. There were charges that price restrictions were hampering production, keeping urgently needed materials out of the markets Black markets were thriving on scarcities, and steaks, chops, nylons, even poultry, and hundreds of other consumer commodities were obtainable for the most part "under the counter." OPA's enforcement efforts were inadequate against illegal dealers, ready cash, unsatisfied demand, and continuing shortages.

After months of bitter controversy in committees and in Congress itself, during which the legislators gave no heed to the Administration's appeal for extension without "crippling" amendments, a greatly modified price control extension bill was sent to the President a few days before the law's expiration. Chester Bowles resigned, saying the "booby trap" provisions in the bill would make price control unworkable On June 29, President Truman, directing his main fire against the "bonanza formulas" sponsored by Republican Senators Taft and Wherry, vetoed the bill as a "choice between inflation with a statute and inflation without one."

For the greater part of July the public lived under a control hiatus. During the OPA holiday prices and rents zoomed, although scarcities disappeared. On July 25, a new OPA extension act became valid. The new measure, shifting emphasis from control to decontrol, liberalized ceiling prices, gave the Secretary of Agriculture control over agricultural commodities, established a Price Decontrol Board

with final authority, and circumscribed subsidy payments.

In the wake of the new measure there came a flood of decontrol actions by the OPA and countless price increases, but a new crisis arose in meat. Cattlemen, rebelling at the restoration of meat ceilings, held back their animals and meat vanished from butchers' counters by early fall. After several weeks of resistance to the mounting pressure from meat-hungry consumers and from the impact of the situation on the coming elections, President Truman yielded on October 14 and removed meat ceilings.

This was the break in the price control dike. Decontrol of other commodities followed rapidly and on November 9 the Chief Executive abandoned all price and wage controls with the exception of those on rents, sugar, and rice, declaring as the battered wartime stabilization program came to an end, "The law of supply and demand operating in the market-place will, from now on, serve the people better than would continued regulation of prices by the Government."

Commodities became plentiful again—and more expensive. The Bureau of Labor Statistics reported that price rises during 1946 were the highest for any year since World War I and six to nine times as great as in the last three years of the Second World War. Retail prices of family living essentials rose 18 percent, of which 15 percent took place in the last six months of the year. Food at retail rose by 34 percent in 1946. Non-agricultural commodities, which climb and decline more slowly than "sensitive" agricultural prices, rose 22 percent during the year.

In the closing days of the year, however, following the greatest splurge of Christmas shopping in the nation's history, there were omens of a price break as the cost of many food and clothing items —from eggs to mink coats—dropped substantially throughout the country.

Housing. The Government's emergency housing program for veterans, launched early in the year to meet the urgent need of returning servicemen, was cancelled on November 9 when the President failed to follow the recommendations of Wilson W Wyatt, then Housing Expediter, and exempt in his general decontrol order controls on building materials.

In launching the emergency program Expediter Wyatt held that there would be a need for accommodations for 2,515,000 families, not counting 1,200,000 families living "doubled up" with others. He proposed a comprehensive program for placing 1,200,000 low- and medium-priced dwelling units under construction in 1946 and an additional 1,500,000 in 1947. The program was implemented by emergency measures for premium payments to spur the production of building materials, government guarantees of markets for new materials and for prefabricated houses, additional government financing of low-cost housing, and broad authority to the Housing Expediter to direct other Federal agencies to stimulate the production of housing.

Other steps in the Government's offensive against the housing shortage included limitation of nonresidential construction, allocation of needed raw materials for the output of building materials, priorities on building materials and ceilings of $10,000 for the sale of a new house, and an $80 rental maximum and veterans' preferences.

President Truman transmitted the program to Congress with his unqualified support, and in May it was approved substantially in the form desired by the Administration. Aided by the regulations and powers granted by Congress, the Wyatt program achieved 1,000,000 started and about 700,000 completed units, including permanent dwellings, temporaries, conversions and prefabricated. Many building materials were still in short supply but the program definitely broke the bottlenecks in this field and effected considerable advances in production.

The building industry bitterly opposed the Wyatt program as a deterrent to construction. Critics also argued that the achievements fell short of meeting demand and that the program failed to provide housing at prices veterans could afford to pay.

The President rejected Mr. Wyatt's insistence on a strengthening of the remaining features of the emergency program, with wages and prices decontrolled, and accepted his resignation in the fall. The President then laid down a new housing policy which shifted the responsibility for providing veterans' dwellings to private industry. Restrictions were eased or nullified, ceilings on new houses were abandoned, but it was promised that no change would be made in the objective of housing veterans and that more rental construction would be stimulated.

Elections. A political axiom that the voters do not "change horses" in times of prosperity was upset during the year. In the off-year elections the Republican party scored a victory of landslide proportions over the incumbent Democratic majority.

Despite the prosperous times there was much dissatisfaction to draw away strength from the Democrats. Most of the country was restive at continuing controls and with recurring shortages which were inexplicable when the exigencies of war were past. The campaign slogan developed by the G. O. P.—"Had Enough, Vote Republican"—struck a strong responsive chord among the electorate. On the other hand the Democrats antagonized many who, squeezed by rising prices, felt that the Administration had failed to support stabilization. The economic confusion was translated into anti-Democratic votes.

There was conflict also within the Democratic cohorts between followers of the late President Roosevelt's New Deal and the so-called "Missouri gang," close advisers of the Chief Executive and generally conservative in viewpoint. There was also a break between the President and the left wing of his party which came to a head with the resignation of Henry Wallace The strong labor element in the Democratic party turned cool toward the Administration Labor accused the President of "lip service" to its cause without fighting for it. Left-wing Democrats supported labor's view. Contrariwise labor's frequent use of the strike weapon proved potent in alienating many voters from the Democratic party.

With the Administration's fumbling over shortages of meat and consumer goods, over the housing program, with strikes, price control, and lagging reconversion, to note the year's outstanding gripes, the election on November 5 represented the lowest point in the President's prestige. Then, too, the magical vote-getting powers of the late President Roosevelt were absent.

The election results stamped an end to the New Deal that had held sway in the country for 13 years. The heterogeneous political machine welded by Franklin D. Roosevelt from Southern conservatives, liberal idealists, and vote-producing big-city machines had been disintegrating since his death in April, 1945. The remnants were now swept away by the voters.

The Republicans gained control of both houses

of Congress: a gain of 12 seats in the Senate for a total of 51; in the House a gain of 56 for a total of 245, well over the 218 necessary for a majority. Republican governors were elected in 25 states.

A total of 35,874,568 persons voted, an increase of 5,849,641 over that cast in the wartime off-year election of 1942 but 1,429,812 under the record for off-year balloting established in the previous peacetime year of 1938.

The Democratic machines in Chicago and Boston were severely buffeted and even Mayor Frank Hague's Jersey City machine was unable to stem the Republican tide in New Jersey. Only Tammany, in New York City, came through with but minor bruises.

The elections turned brighter spotlights on potential Republican candidates for President in 1948. Governors Thomas E. Dewey of New York and Earl Warren of California were overwhelmingly re-elected. Also mentioned prominently were Republican Senators Taft and Bricker of Ohio; and Vandenberg of Michigan. Former Governor Stassen of Minnesota formally announced his candidacy for the Presidency.

A proposal by Senator J. William Fulbright, Democrat of Arkansas, that President Truman, lacking support in Congress, resign in favor of a Republican caught momentary public attention but no official recognition. Instead President Truman pledged his cooperation with the incoming Congress and appealed especially for continued operation of a bi-partisan foreign policy. He asked both parties to exercise "wisdom and restraint" to avoid the "serious difficulties" of divided Government control.

Appointments. One of the factors that contributed substantially to the Democratic defeat at the polls was the dispute between the President and the leader of the left wing of the party, Henry A Wallace, then Secretary of Commerce. The issue was brought out in a dispute over foreign policy two months before the elections. In a speech in New York City on Sept. 12, Mr. Wallace criticized the "get tough with Russia" policy. In Washington, the President said he had read the speech and endorsed it. A furor of reaction followed and Mr. Truman issued a clarifying statement saying there was "no change" in foreign policy and that he supported the Wallace right to speak without intending to indicate that "I approved the speech as constituting a statement of the foreign policy of this country." As the controversy continued, the President on Sept. 20 asked for Mr. Wallace's resignation because of a "fundamental conflict" between his and the Administration's views on international affairs.

The other member of the Roosevelt "Old Guard" to leave the Cabinet was Harold Ickes, Secretary of the Interior. Mr. Ickes resigned in February as a result of a clash with Mr. Truman over the latter's nomination of a California oil-man and Democratic chieftain, Edwin W. Pauley, as Under Secretary of the Navy. Mr. Ickes, maintaining that Mr. Pauley had submitted the "rawest proposition ever made to me" in connection with California oil lands, declined to support the nomination before a Senate Committee. Julius A. Krug, former head of the War Production Board, succeeded Mr. Ickes while Averell Harriman, former ambassador to Russia and Great Britain, replaced Mr. Wallace.

Another Presidential appointment that caused some Congressional disapproval was that of his close friend George E. Allen as a director of the Reconstruction Finance Corporation. Mr. Allen resigned after a year's service.

In other appointments Fred M. Vinson, the Secretary of the Treasury, was named Chief Justice, filling the vacancy left by the death of Chief Justice Harlan Fiske Stone in April. The appointment was preceded by an open row between Justices Jackson and Black. John W. Snyder, serving as director of the OWMR was named Secretary of the Treasury.

The Administration and Congress. The seventy-ninth Congress came to an end in 1946 after having covered a course from war through victory to reconversion. During its session its record was one of close cooperation with the Executive branch in foreign affairs and consistent bickering on domestic issues. Although the President's party was numerically in control of Congress, both the Senate and the House were dominated by a coalition of minority Republicans and Southern Democrats who frequently united to block the recommendations made by Mr. Truman. The Congress, to the right of the President, regarded many of his urgent legislative proposals with tolerance and indifference; when it came down to cases, most of the proposals took severe beatings. As a result consideration of national affairs was highlighted by frequent clashes between President Truman and his former colleagues, reflected in outright Congressional rejection of close to half of his major proposals and compromises of many others.

One of the major problems of the seventy-ninth's second session was the necessity of legislating to deal with developing postwar emergencies. Legislation was handicapped also by a barrage of propaganda and lobbying by various interests seeking to sway the legislators toward a given policy. Many legislators, accustomed to a minimum number of programs at one time, objected, too, to the voluminous and diffuse barrage of Presidential programs which poured from Mr. Truman in a volume that appeared to defy absorption and consideration.

At the beginning of the year, President Truman told Congress the domestic goals of "expanded production and steady, well-paid jobs and purchasing power" were a "long way" from attainment and stressed the desirability of Congressional cooperation. He recommended the following 21 acts of legislation:

Legislation to authorize the President to create fact-finding boards for the prevention of strikes in nation-wide industries after collective bargaining and other forms of settlement failed
Enactment of a full-employment bill
Liberalization of unemployment insurance benefits
Adoption of a permanent fair employment practices act.
Provision for a comprehensive program of scientific research
Legislation raising the minimum wage level.
Enactment of a health and medical care program.
Adoption of a program for universal training
An adequate salary scale for Federal employees.
Provision for Presidential succession.
Unification of the armed services
Legislation for the domestic control of atomic energy
Retention in the Federal Government of the United States Employment Service to June 30, 1947.
Social security coverage for veterans for service period.
Supplementing of unemployment insurance benefits provided by the states.
Extension of crop insurance
Permission to sell surplus ships
Provision for the stock piling of strategic materials.
Repeal of the Johnson Act blocking foreign loans
Enactment of Federal airport legislation.
Legislation for the development of the Great Lakes–St. Lawrence River basin

In addition to these, the President made a number of other recommendations during the year, some of which have already been discussed above, such as emergency housing legislation, price control, and labor measures.

Major measures approved by Congress were:

A far reaching measure entitled the Employment Act of 1946 which provided for an annual economic report by the President and a Council of Economic Advisers of three members Representing a compromise from Mr Truman's "full employment," the measure was designed to use all means to maintain "maximum employment" and avoid depressions.

An equally outstanding measure was modernization of the creaking machinery of the legislative branch through reorganization and streamlining. The number of standing House committees was cut from 48 to 19 and of Senate committees from 33 to 15 Registration of lobbyists became mandatory Salaries of legislators were raised from $10,000 to $12,500 annually plus a $2,500 tax-free expense allowance. Members of Congress became eligible for Civil Service retirement

The pay of Federal judges was increased from $10,000 to $15,000 and Federal employees got a raise of 14 percent.

The President was granted broad powers to reorganize Federal agencies and Congress accepted two proposed reorganizations the centralization of welfare activities into the Federal Security Agency and the transfer of functions among various agencies A third, to unify all Federal housing activities, was defeated

Powers of the Government to allocate and ration scarce commodities were continued through extension of the Second War Powers Act

The Federal-aid school lunch program, operating on an emergency basis for a decade, was made permanent.

A General Hospital bill, authorizing expenditure of $375,000,000 over five years to build new hospitals and improve old facilities, was approved

Administration of the disposal of war surpluses was centralized

A formula was approved for the sale of surplus vessels

The President was authorized to acquire and build up stockpiles of strategic war materials

The USES was returned to the states in November instead of June, 1947 as recommended by Mr Truman

Provisions of GI insurance legislation were broadened.

The GI Bill of Rights was liberalized to foster greater use of the schooling provisions

On international matters Congress went down the line with the President, approving the following

Ratification of the United Nations Charter

Authorization for participation in international monetary arrangements.

Appropriations for the United Nations Relief and Rehabilitation Administration.

Extension of legislation for reciprocal trade agreements

A loan of $3,750,000,000 to Great Britain

Authorization of a broad program of cultural relations with foreign countries, including the exchange of educational and scientific information.

Congress scrutinized with more care than in the last dozen years appropriation estimates by the Executive. The ceiling on the national debt was reduced from $300,000,000,000 to $275,000,000,000. War expenditures were sharply curtailed. The excess profits tax was repealed and income taxes were modified slightly The old-age and survivors insurance tax was frozen for another year at the existing rate.

The Budget for the fiscal year 1947, submitted by the President in January 1946, estimated expenditures at $35,100,000,000, receipts at $31,500,000,000 and the deficit at $3,600,000,000. The deficit for the fiscal year 1946, then half over, was placed at $28,800,000,000 but the President later announced this estimate was too high by $7,000,000,000. "We are on the way toward a balanced budget," Mr. Truman said "It is the aim of our fiscal policy to balance the budget for 1947." Total war expenditures of the United States from June 30, 1940 to June 30, 1946 were estimated at $339,000,000,000 or $2,431 per capita. As of June 30, 1946, the public debt was placed at $269,422,009,173.

Administration bills that failed to pass during the year included:

Army-Navy unification; universal military training; a permanent fair employment practices law; social security expansion; fact-finding labor disputes boards; the President's emergency strike-control program; liberalization of unemployment compensation benefits; an increase in the minimum wage; establishment of a Federal health and medical care program; expansion of crop insurance; Federal aid to education; adoption of a long-range Federal housing program; establishment of a national coordinating science agency; designation of the Speaker of the House as successor in event of the death of the President and Vice President; provision for the Great Lakes–St. Lawrence waterway; establishment of military cooperation with other American countries, primarily for the standardization of equipment; authorization for military missions to foreign countries; and repeal of the Johnson Act on foreign loans.

In addition to actual legislation, Congress conducted scores of special inquiries and investigations, the most prominent of which were these:

The Joint Committee to Investigate the Pearl Harbor Attack, after an inquiry of many months, submitted its conclusion to Congress on July 20. The majority report, approved by six Democrats and two Republicans, placed the blame upon Japan and exonerated President Roosevelt and his chief Cabinet officials and military leaders. A minority report by two Republicans charged the late President and his principal advisers with "failure to perform responsibilities essential to the defense of Pearl Harbor." Both reports attributed to the Army and Navy commanders of the base culpability for errors of judgment but not dereliction of duty.

An investigation by the Senate Special Committee to Investigate the National Defense Program (the former Truman committee) into alleged war contract profiteering brought out sensational disclosures of the machinations of the Garsson brothers in building up during the war a $78,000,000 "munitions empire" out of virtually nothing. Representative Andrew J May of Kentucky, chairman of the House Committee on Military Affairs, was mentioned prominently during the course of the inquiry.

The same committee investigated in December charges that Senator Theodore G. Bilbo of Mississippi had accepted gifts from war contractors. After hearings, during which contractors told of gifts to the Senator out of sheer benevolence, a majority of the committee held that Mr. Bilbo had accepted $25,000 in gifts; had "misused his high office;" and had violated the Hatch Act barring political contributions by Government contractors. It recommended that the Senate take appropriate action.

Production. The great accomplishment of the year was the completion of domestic reconversion from war to peace. The strikes occurring with monotonous regularity tended to conceal the achievement but the work done throughout the year overshadowed the layoffs and the production of the nation's farmers and workers mounted to new peacetime levels.

During 1946 industrial production was consistently 50 percent above the 1939 pre-rearmament levels. During the second half of 1946, despite bottlenecks, shortages of materials, work stoppages, and other retarding factors, production reached higher rates than ever seen in a peacetime year.

The American people ate more food per capita than in any previous year, even though in some cases they were unable to buy exactly the kind of food they desired. Goods scarce during the war began to fill dealers' shelves. In general, people were supplied with more goods and services than ever before. The production of food, clothing, and other non-durable goods reached the highest level on record during 1946. The Federal Reserve Board's index of production of non-durables averaged 163 (1936–39 equalling 100), comparable

to an index of 166 in 1945 when military needs absorbed a significant part of the total.

Steel, basic to the economy, rolled out in a tonnage unequalled in any year prior to 1940 and, despite major strikes, amounted to 65,800,000 tons of ingots and steel for castings. Output of other basic materials such as coal, oil, paper and textiles also was high. Lumber and many other building materials, urgently needed for housing, recovered from early production slumps.

The production of many of the durable goods so eagerly sought by consumers surpassed prewar levels; particularly radios, washing machines, vacuum cleaners, and electric ranges. Principal exceptions were automobiles, refrigerators, and sewing machines Automotive production totaled slightly over 3,000,000 passenger cars and trucks, well below the best peacetime years but equal to the rate for 1940 and 1941.

Income. The national income was at an all-time peak. Income payments to individuals in 1946 were estimated at $164,000,000,000 compared with $161,000,000,000 in 1945. This total includes wages and salaries, dividends, interest, mustering-out pay, veterans' benefits and other forms of compensation.

Spending. Consumers spent a record total of $127,000,000,000 for goods and services in 1946, almost 20 percent above 1945 and about 70 percent over the prewar peak year of 1941. The largest share of the increase occurred in expenditures for non-durable goods, which absorbed more than their normal peacetime proportion of the consumer dollar. Purchases of non-durables, such as food, clothing, tobacco and gasoline, totaled $77,000,000,000. Expenditures for durable goods, such as furniture, household appliances, automobiles and jewelry were estimated at $14,000,000,000. Part of the high level of expenditures was attributable to higher prices.

Employment. Civilian employment approached 58,000,000 during 1946. If those in military service were included, total employment exceeded 60,000,000. Civilian employment was the highest the nation had ever known—10,000,000 more than in 1940 and several million above the wartime peak. Unemployment hovered around the 2,000,000 mark during the year. The absorption of personnel released from military duty into civilian capacities was generally accomplished smoothly. Less than a year and a half after V-J Day, more than 10,000,000 veterans and other millions of war workers had been absorbed into peacetime production.

SAMUEL A. TOWER.

UNIVERSITIES AND COLLEGES. More than 2 million students, a fifty percent increase over the previous peak enrollment, were attending the 1,749 colleges and universities of the United States at the opening of fall terms this year, according to the Federal Security Agency of the United States Office of Education. The present student load is more than double the 952,000 enrollment at the opening of fall terms a year ago. Hence, enrollments in higher educational institutions have approximately doubled in the past year.

In the fall of 1945, there were fewer than 50,000 veterans enrolled in higher educational institutions. This year there are 1,080,396 veterans enrolled, or approximately one-half of the present total number of students.

A record of fall enrollment over the period beginning with 1939 appears in table 1. Statistics for earlier years are based upon a similar survey made by the Office of Education last year.

TABLE 1—ESTIMATED FALL ENROLLMENT IN HIGHER EDUCATIONAL INSTITUTIONS, 1939–1946

School Year	*Fall Enrollment*
1939–40	1,360,000
1941–42	1,263,000
1943–44 [a]	738,000
1945–46 [b]	952,000
1946–47	2,078,000

[a] Does not include 294,000 military personnel enrolled.
[b] Does not include 88,000 military personnel enrolled.

In table 2 the 2,078,095 total enrollment is distributed among the six categories of institutions Also shown in table 2 are enrollments of veterans, a total of 1,080,396. Approximately one-half of all students and approximately one-half of veterans are enrolled in the 131 larger institutions (group 1).

TABLE 2—ESTIMATED FALL ENROLLMENT IN HIGHER EDUCATIONAL INSTITUTIONS, TOTAL AND VETERANS, BY TYPE OF INSTITUTION, 1946

Type of Institution	*No of Institutions* [a]	*Fall Enrollment*	
		Total	*Veterans*
All institutions	1,749	2,078,095	1,080,396
1 Universities and large institutions of complex organizations	131	1,031,430	591,468
2 Colleges of arts and sciences	557	439,449	194,570
3. Independent technical and professional schools	287	210,176	129,238
4. Teachers colleges and normal schools	201	150,059	61,780
5. Junior colleges	468	188,139	85,124
6. Negro institutions	105	58,842	18,216

[a] Total number of institutions from which sample was draw may not be exact count of institutions in existence by common definition. n

Before the war approximately one-third of annual college enrollment reported consisted of students in college for the first time. Figures on that part of the total enrollment represented by students the first time in any college are important as an indication of the accession rate to college, whether directly from secondary schools or after interruptions through service in the armed forces. Table 3 shows fall enrollment for the various types of institutions by that part which is represented by students entering college for the first time, and that part which is represented by students previously in college (table 3 is on p. 716).

It is of importance to note that the proportion of new students among men is higher than among women. This is due chiefly to the fact that the normal flow of women through college has not been interrupted during the war period.

Seventy percent as many new students (119,000) this fall are enrolled in junior colleges as in colleges of arts and sciences (163,000), and 44 percent as many as in universities and large institutions of complex organization (269,000). This is very significant since the aggregate enrollment in universities and colleges is much greater than that in junior colleges. Approximately 65 percent of the men and 61 percent of the women in junior colleges are new students. There is evidence, therefore, that the junior colleges have served as a means of accommodating beginning students.

It is of note, nevertheless, that the largest number of new students are enrolled in the 131 large institutions. The percentage of students entering college first time in Negro institutions is high, men 44 percent, women 31 percent.

Increases in enrollment of men and women students over 1945 are shown in table 4 (see p. 716). The significant contrast in this table is the increase in men students (294 percent) as compared

(*continued on page 716*)

Institution and Address	Control or Affiliation	Date Founded	Chief Executive	Faculty	Enrollment, 1945–1946					1945–1946			
					Total	Men	Women	Graduate Students	Summer School	Student Aid	Endowment	Gifts and Grants	Value of Plant
Alabama													
Alabama, Univ. of, University	State	1820	Raymond R Paty	481	5,844	3,577	2,267	184	1,642	$96,500	$1,174,653	$48,182	$8,863,024
Alabama Coll , Montevallo	State	1896	Arthur Fort Harman	68	671	0	671		453	27,287	414,452	.....	2,500,000
Alabama Polytechnic Inst , Auburn	State	1872	L N Duncan	722	5,484	4,021	1,463	158	1 260	(u)	(u)	(u)	(u)
Birmingham-Southern Coll. Birmingham	Methodist	1856	George R Stuart	48	1 283	837	446	..	235	11,276	580,749	46,340	2,247 000
Howard Coll. Birmingham	Baptist	1842	Harwell G Davis	58	1,135	678	350	..	107	18,955	753,329	82,434	968,463
Huntingdon Coll., Montgomery	Methodist	1854	Hubert Searcy	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)
Judson Coll , Marion	Baptist	1838	J I Riddle	26	306	0	306	....		6,596	544,978	64.402	680,160
Spring Hill Coll , Spring Hill	Catholic	1830	W D O'Leary	32	580	370	210	...	236	3,500	230,000	25,000	1,020,000
State T C., Florence	State	1872	J A Keller	47	653	219	434	.	449	16,200	.....	.....	2,010,000
State T. C., Jacksonville	State	1833	Houston Cole	42	995	274	721	78	360	18,457	.....	.....	.....
State T. C., Livingston	State	1883	W W Hill	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)
State T. C., Montgomery [N]	State	1874	H Councill Trenholm	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)
State T C., Troy	State	1887	C B Smith	31	257f	128	129	3	505	650	0	16,386	760,245
Talladega Coll., Talladega [N]	Private	1867	A D Beittel	32	265	41	224			6,500	1,168,879	89,105	1,659.649
Tuskegee Inst., Tuskegee [N.	Private	1881	Frederick D. Patterson		1,679	795	884	14	1,345	25,132	7,101,324	189,709	5,663,872
Alaska													
Univ. of Alaska, College	Territorial	1922	Charles E Bunnell	32	151	84	67	....	...	2,000	.....	4,510	1,000,000
Arizona													
Arizona, Univ. of, Tucson	State	1885	Alfred Atkinson	198	5,598	2,848	2,750	134	757	53,575	1,875,075	19,857	6,826,009
State T. C , Flagstaff	State	1899	Tom O Bellwood.	32	322	181	141	26	430	1,441	(u)	(u)	. ...
State T. C., Tempe	State	1885	Grady Gammage	65	1,731	812	919	215	435	19,302	.....	.....	2,566,000
Arkansas													
Arkansas, Univ. of, Fayetteville	State	1871	Ar r M Harding	210	3,247	2,269	978	88	866b	10,000	132,666	. ...	7,262,645
Arkansas A and M Coll , Monticello	State	1909	Ma. vin Bankston	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)
Arkansas State Coll , State College	State	1910	William J Edens	40	1,425	640	785		807	8,000	.. ...	..	3,325,841
Henderson State T C , Arkadelphia	State	1929	D D McBrien	36	586	122	580	....	297	...	.. ..	. ..	995 000
Hendrix Coll , Conway	Methodist	1884	Matt L Ellis	39	430	208	222	..	232	10,200	753,694	43,309	926,674
Ouachita Coll , Arkadelphia	Baptist	1886	Jas R Grant	37	870	420	450	. .	336	25,870	575 000	48,000	940,000
State T. C., Conway	State	1907	Nolen M Irby	45	767f	323	444	0	852	7,261	140,000d	0	1,821,911
California													
California, University of *	State	1868	Robert Gordon Sproul	2,376	35,275	18,483	16,792	4,561	4 382				
California, University of, Berkeley	State	1868	Robert Gordon Sproul	1 082	19,496	10,550	8,946	3,366	1,685				
California, University of, Los Angeles	State	1868	Robert Gordon Sproul	469	11,753	5,677	6,076	1,195	2,124	140,667	36,146,557	1,224,092	63,909,929
California, University of, San Francisco	State	1868	Robert Gordon Sproul	596	1,170	749	421	**	34				
California, University of, Santa Barbara	State	1868	Robert Gordon Sproul	95	2,042	826	1,216	....	573				
(* Net figures—duplicates in staff and enrollments shown below are deducted.)													
(** Professional students only; not classified Graduate or Undergraduate)													
California Inst of Technology, Pasadena	Private	1891	Lee A DuBridge	180	1,476	1,476	0	662	0	10,000	20,000,000	.....	13,500,000
Chapman Coll , Whittier	Disc of Christ	1860	George N Reeves.	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)
Claremont Graduate School, Claremont	Private	1925	E Wilson Lyon	106	448	255	193	448	452	3,200	739,603	70,997	1,366,795
(Affiliated with Pomona College, Scripps College, and the Claremont Undergraduate School for Men, the faculty shown is the total for these affiliated Colleges)													
Dominican Coll. of San Rafael, San Rafael	Catholic	1891	Sister Mary Patrick	38	476	0	476	..	220	.....	.....	.....	.. ...

a Numbers followed by the letter (a) include part-time faculty members All others indicate full-time faculty only
b Included in total
c Word "Teachers" formerly included in name of institution.
d Includes appropriations
e Acting
f Does not include summer school enrollment.
t Does not include graduate and summer students.
u No statistics were supplied by this institution for 1945–46.
x Students of Nursing Education.

Institution and Address	Control or Affiliation	Date Founded	Chief Executive	Faculty	Enrollment, 1945–1946					1945–1946			
					Total	Men	Women	Graduate Students	Summer School	Student Aid	Endowment	Gifts and Grants	Value of Plant
Fresno State Coll., Fresno	State	1911	Frank W. Thomas	101a	2,891f	1,264	1,586	41	557	$10,000	$	$519,000d	$1,956,571
George Pepperdine Coll., Los Angeles	Private	1937	Hugh M Tiner	46	1,042	383	290	14	355	8,050	1,354,287	7,709	1,018,137
Holy Names, Coll of the, Oakland	Catholic	1880	Sister M R Emmanuella	48	328	0	328		273				
Immaculate Heart Coll , Los Angeles	Catholic	1916	Sister Mary Eucharia	56	800	0	800	8	275	10,000	53,875	25,000	1,000,000
Loyola Univ. of Los Angeles, Los Angeles	Catholic	1865	Edward J Whelan	65	500	500	0	(u)	(u)	(u)	(u)	(u)	(u)
Medical Evang. Coll , Loma Linda & Los Angeles	Adventist	1909	Walter E Macpherson	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)
Mills Coll , Oakland	Private	1852	Lynn T White, Jr.	109	1,082	28	731	71	351	74,240	2,524,142	48.678	3,345,129
Mount Saint Mary's Coll., Los Angeles	Catholic	1925	Mother M de Lourdes	38	370	0	370		295				
Occidental Coll , Los Angeles	Presbyterian	1887	Arthur Gardiner Coons	80	1,222	643	579	(b)	163	39,959	1,300,394	127,516	2,615,484
Pacific, Coll of the, Stockton	Methodist	1851	Tully C Knoles	68a	1,035	360	425	80	427	12,000	581,172	130,595	1,125,542
Pacific Union Coll., Angwin	Adventist	1909	Percy W Christian	64	939	409	530	11	301	105,000		40.423	718,740
Pomona Coll , Claremont	Private	1887	E Wilson Lyon	78	907	369	538			27,904	4,463,083	410 957	3,838,595
Redlands, Univ of, Redlands	Baptist	1907	George H Armacost	72	1,341	575	766	73	143	36,355	2,493,078	49,115	2,201,921
St Mary's Coll. of Calif , St. Mary's Coll	Catholic	1925	Brother Austin	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)
St. Patrick's Seminary, Menlo Park	Catholic	1898	Thomas C Mulligan	15	110	110	0						
San Diego State Coll., San Diego	State	1897	Walter R Hepner	153a	4,914	3,274	1,640	35	1,408				2,688.342
San Francisco, Univ. of, San Francisco	Catholic	1855	William J Dunne	65	1,632	1,309	323		404				3,000.000
San Francisco Coll. for Women, San Francisco	Catholic	1930	Mother Leonor Mejia	37	537	0	537	28	212				
San Francisco State Coll. San Francisco	State	1899	J Paul Leonard	69	2,864	773	2,091		912				1,695,586
San Jose State Coll , San Jose	State	1862	T W MacQuarrie	163a	5,148	2,219	2,929		997	17,595			2,846,582
Santa Clara, Univ of, Santa Clara	Catholic	1851	William C Gianera	45	333	333	0		129	25 000	200,000	150,000	2.000,000
Scripps Coll , Claremont	Private	1926	Frederick Hard	26a	237	0	237			12,350	984 399	46,641	2.092,539
Southern California, Univ. of, Los Angeles	Private	1879	R B von Klein-Smid	1,050	23,688	15,634	8,054	2,711	6 471	96,308	1,600,000	785,800	12,000,000
Stanford Univ , Stanford University	Private	1885	Donald B Tresidder	650	6,642	4,275	2,367	2,345	3 074	126.050	38,400,000	1,647,660	19.800 000
Whittier Coll., Whittier	Friends	1901	William C. Jones	45	891	351	540	31b	4,856	21,161	712,186	80,698	700,500
Colorado													
Adams State Coll , Alamosa	State	1921	Ira Richardson	25	413	159	254	12	375				790.000
Colorado, Univ of, Boulder	State	1876	Robert L Stearns	359	8,408	4,306	4,102	745		38,000	927,599	15.500	11,462,673
Colorado Coll., Colorado Springs	Private	1874	Thurston J Davies	60	2,101	1,178	423	47	186	12,750	2,929,511	80,021	2,173,590
Colorado School of Mines, Golden	State	1870	Roy M Green	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)
Colorado State Coll of A. and M Arts, Fort Collins	State	1870	Roy M Green	237	2,057f	1,524	533	56	287		557,639	12,000	6,268,174
Colorado State Coll. of Educ , Greeley	State	1890	George Willard Frasier	97	3,281	1,468	1,813	871	1,807	15,000			3,725,000
Denver, Univ of, Denver	Methodist	1864	Ben M Cherrington	750	9,654	5,413	4,241	572	2,086		2,370,000		2,605,000
Loretto Heights Coll., Loretto	Catholic	1891	Sr Frances Marie	45	493	0	493		169				1,200,000
Western State Coll., Gunnison	State	1911	C C. Casey	32	746	302	444	135	467	5,800	152,500		1,000,000
Connecticut													
Albertus Magnus Coll , New Haven	Catholic	1925	Sister Mary Samuel	37	375	0	375		120	33,397	6,139	16,415	750,352
Connecticut, T C. of, New Britain	State	1849	H D Welte	94	538	271	267		390	8 460	320,648		1,107 420
Connecticut, Univ. of, Storrs	State	1881	A N Jorgensen	287	4,134	2,279	1,855	322	628	76,615	307,295	10,065	12,000 000
Connecticut Coll , New London	Private	1911	Rosemary Park (e)	93	955	5	950	0	235	14,497	2,142,609	169,518	5,249,203
St. Joseph Coll., West Hartford	Catholic	1932	Sister M Rosa	35	885	0	885		280	9,000		39,000	1,313,000
State T. C., Danbury	State	1904	Ralph C Jenkins	45	162	28	134	0	127	8,080			750.000
State T. C., New Haven	State	1893	E. Ward Ireland	119	2,092	355	1,747	108	277	3,685			150,000

a Numbers followed by the letter (a) include part-time faculty members All others indicate full-time faculty only.
b Included in total.
c Word "Teachers" formerly included in name of institution.
d Includes appropriations.
e Acting.
f Does not include summer school enrollment.
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u No statistics were supplied by this institution for 1945–46.
x Students of Nursing Education.

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					Total	Men	Women	Graduate Students	Summer School	Student Aid	Endowment	Gifts and Grants	Value of Plant
State T. C., Williamantic	State	1889	George H Shafer	42	339	29	310	223	53	$ 150	$	$	$ 600,000
Trinity Coll , Hartford	Private	1823	G Keith Funston	33	350	350		10	460	15,705	3,849,219	55,670	4,034,391
U.S Coast Guard Academy, New London	Federal	1876	Rear Admiral James Pine	37	301	301				Federal	Federal	Federal	6,000,000
Wesleyan Univ , Middletown	Private	1831	Victor L Butterfield	70	518	511	7	32	250	21,838	9,129,166	473,673	5,778,819
Yale Univ , New Haven	Private	1701	Charles Seymour	1,012a	5,707	5,008	699	784	850	660,761	123,112,370	1,550,190	68,700,000
Delaware													
Delaware, Univ of, Newark	State	1833	W. Owen Sypherd	106	1,013	561	290	56	106	28,530	5,428,324	196,522	5,885,995
District of Columbia													
American Univ , The	Methodist	1891	Paul F Douglass	(u)	4,034	1 590	2,444	1,342	735		866,237	21,773	3,383,084
Catholic Sisters Coll., Washington, D.C	Catholic	1911	Gerald A Ryan	23	293	56	237	104	0				
Catholic Univ of America	Catholic	1887	Patrick J McCormick	254	2,730	1,753	977	1,261	3,221		3,938,817	746,509	4,146,802
Dumbarton Coll of Holy Cross	Catholic	1935	Sister Mary Frederick	25	214	0	214		67	1,873		1,235	1,060,622
Georgetown Univ.	Catholic	1789	Lawrence C German	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)
George Washington Univ	Private	1821	Cloyd Heck Marvin	453	11,380	6 292	5,088	1,562	2,594	60,145	2,474,174	4,032,708	6,000,000
Howard Univ [N]	Private	1867	Mordecai Wyatt Johnson	365	5,130f	2,262f	2,868f	470f	1,762	43,880	1,146,417	62,260	7,918,415
James Ormond Wilson T. C., Washington, D.C.	Federal	1873	Walter E Hager	50a	375f	12	363	0	59				760 000
Miner T C [N]	Municipal	1854	Eugene A Clark	50	478f	53	425		125			201,397	305,000
Trinity Coll	Catholic	1897	Sister Catherine Dorothea	56	485	0	485			31,768	600		2,500,000
Washington Missionary Coll , Takoma Park	Adventist	1904	William H. Shephard	36	558f	239	319		233	1,411	30,000d	80,156	632,628
Florida													
Florida, Univ of, Gainesville	State	1853	John J Tigert	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)
Florida A & M Coll for Negroes, Tallahassee	State	1887	Wm H Gray, Jr	151	1,248	399	849	101	1 401		0	5,000	1,563,755
Florida Southern Coll , Lakeland	Methodist	1885	Ludd M Spivey	72	1,159	450	709		435	7,200	1,250,000	24,000	2,250,000
Florida State Coll for Women, Tallahassee	State	1905	Doak S Campbell	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)
John B. Stetson Univ , DeLand	Baptist	1883	William Sims Allen	60	1,109	475	631	3	167	21,000	1,000,000	288,000	1,770,000
Miami, Univ of, Coral Gables	Private	1926	B F Ashe	135	2,450	1,444	1,006	26	1,518	29,061		199,168	1,965,071
Rollins Coll , Winter Park	Private	1885	Hamilton Holt	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)
Georgia													
Agnes Scott Coll , Decatur	Private	1889	James Ross McCain	66	551	0	551			12,550	2,550,200	38,500	2 660,446
Albany State Coll , Albany (Formerly Ga Normal Coll , State)	State	1903	Aaron Brown	36	315	30	285		680	14,260			450 000
Atlanta Univ , Atlanta [N]	Private	1865	Rufus E Clement	31a	383f	96f	287f	383f	1,304	4,760	4,307,726		1,920,395
Brenau Coll , Gainesville	Private	1878	Haywood J Pearce	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)
Clark Coll , Atlanta [N]	Methodist	1820	James P Brawley	43	767	174	593			22,124	750,000	37,852	828,175
Emory Univ , Emory University	Methodist	1836	Goodrich C White	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)
Fort Valley St. Coll , Fort Valley	State	1895	Cornelius V Troup	47	463	106	357		824	4,572	34,529	162,816	563,508
Georgia, Univ of, Athens	State	1785	Harmon W Caldwell	302	4,168	1,623	2,545	108	1,885	24 948	1,073 665	23,245	7,845,659
Georgia School of Technology, Atlanta	State	1885	B R Van Leer	268	4,200	4,200		54	1,291	68,500	690,000	50,000	6,090,000
Georgia State Coll , Industrial College [N]	State	1890	Benjamin F Hubert	55	673f	356f	317f	0	812	5,000	0	0	829,316
Georgia State College for Women, Milledgeville	State	1889	Guy H Wells	104	1,161f	0	1,161		616	17,500		190	3,230,589
Georgia State Womans College, Valdosta	State	1906	Frank R Reade	28	347f	0	347f	0	132	6,339	118,687		807,681
Georgia T C , Collegeboro	State	1908	M S Pittman	37	393f	160	233		703	1,050			700,000
Mercer Univ , Macon	Baptist	1833	Spright Dowell	43	765	554	211	10	854	13,337	2,353,880	403,395	1,360,157

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Morehouse Coll , Atlanta [N.] (Summer School affiliated with Atlanta University)	Private	1867	B. E. Mays	31	580f	580f	0	0	1,304	$ 8,500	$1,656,000	$ 7,000	$ 333,635
Morris Brown Coll., Atlanta [N.]	Methodist	1881	W A Fountain, Jr.	39	594	95	499	....	....	18,887	243,886	114 983	403,970
Paine Coll., Augusta [N.]	Methodist	1882	E C. Peters	20	365	0	365f	....	184	7,598	35,000	77,439	437.000
Shorter Coll., Rome	Baptist	1873	Paul M Cousins	32a	272	4	268	0	0	15,000	625,000	12,500	700,000
Spelman Coll , Atlanta [N.] (Affil. Atlanta)	Baptist	1881	Florence M Read	42a	490	0	490	....	.	3,303	3,238,652	47 645	968 566
Wesleyan Coll., Macon	Methodist	1836	Nenien C. McPherson, Jr.	70a	652	10	642	....	41	33,280	1,075,000	94,313	2,648,655
Hawaii													
Hawaii, Univ. of, Honolulu	Territorial	1907	Gregg M Sinclair	154	3,748	2,164	1,584	529	978	9,088	66,791	1,615,942	4,062,340
Idaho													
Albion State Normal School, Albion	State	1893	R H Snyder	23a	340	42	103	.	195	3,600	700,000	.....	1,000,000
Idaho, Univ. of, Moscow	State.	1889	J E. Buchanan	182	2,564	1,576	988	272	227	5,000	4,489,000	.... .	3,100.000
Idaho, Coll. of, Caldwell	Presbyterian	1891	William W. Hall, Jr	25	311	135	176	..	173	1,500	522.000	25,000	500.000
Lewiston State Normal School, Lewiston	State	1893	Glenn W Todd	32	301	132	169	13	201	4,013	151,490	....	1,045.000
Northwest Nazarene Coll , Nampa	Nazarene	1913	L. T. Corlett	21	574	196	378	10	43	18,430	.... ..	45,929	417,000
Illinois													
Art Inst. of Chicago, School of, Chicago	Private	1879	Hubert Ropp	80	5,172	1,940	2,892	10	820	. ....	.....	.....	.....
Augustana Coll & Theological Sem , Rock Island	Lutheran	1860	Conrad J. I. Bergendoff	61	2,058	869	1,141	125	442	18,835	1,686,005	260,012	1,742,080
Aurora Coll., Aurora	Advent Chr	1893	Theodore P Stephens	33a	363	193	170	....	47	3,774	74,931	109,491	287.723
Barat Coll of the Sacred Heart, Lake Forest	Catholic	1904	Rev M Regan	30	305	0	305	....	60	. . .	.....	100 000	1,000,000
Bradley University, Peoria	Private	1897	David Blair Owen.	133a	2,944	2,485	459	35	1,017	15,018	2,429 439	206,382	1,334,639
Carthage Coll , Carthage	Lutheran	1870	Erland Nelson	24	274f	110	164	....	39	17,938	774,012	61,837	591,600
Central Y.M C.A. Coll , Chicago	Y M C A.	1919	W D. Gilliland (e)	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)
Chicago, Univ of, Chicago	Private	1891	Robert Maynard Hutchins	850	14,080	7,138	6.942	5,204	3,417	503,448	72,521,247	2,797,981	43,889,263
Chicago Musical Coll., Chicago	Independent	1867	Rudolph Ganz	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)
Chicago T. C., Chicago	Municipal	1869	John A Bartky	42	848	60	788	. ..	288	..	... ..	... ..	5,000,000
De Paul Univ , Chicago	Catholic	1898	Comerford J O'Malley	350	9,714	4,333	4,981	400	5,596	46,428	2,500,000	2,597	2,300,000
Eastern Illinois State T C , Charleston	State	1899	R G Buzzard	103	1,218	848	370	0	668	499	.....	.... .	2,066,294
Elmhurst Coll , Elmhurst	Ev. & Ref	1871	Timothy Lehmann	28	348	180	168	0	0	18,520	220,168	1,774	1,197,303
George Williams Coll , Chicago	Private	1890	Harold C Coffman	33a	349	202	147	48b	0	2,897	231,101	104,855	1,113,091
Illinois, Univ. of, Urbana (Geo D. Stoddard, Pres , after July 1, 1946)	State	1867	A. C. Willard	1,499a	21,693	14,651	7,042	2,356b	4,257b	83,846	2,071,883d	561,201	48,027,117
Illinois Coll., Jacksonville	Presb. & Cong	182	H Gary Hudson	25a	313	203	110	. .	....	15,953	1,228,015	102,843	870,513
Illinois Inst. of Technology, Chicago	Private	1892	Henry Townley Heald	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)
Illinois State Normal Univ , Normal	State	1857	R W Fairchild	208	1,339f	513	826	74	799	30,080	0	0	2,769,112
Illinois Wesleyan Univ , Bloomington	Methodist	1850	William E Shaw	68a	949	420	519	44b	121b	18,250	71,797	20,170	901,907
James Millikin Univ , Decatur	Presbyterian	1901	J. Walter Malone.	53a	760	464	296	...	..	19,395	1,031,093	30,000	1,359,157
Knox Coll., Galesburg.	Independent	1837	Lyndon O Brown	68	685t	311	374	0	144	16,412	2,657,847	148,204	1,817,764
Lake Forest Coll , Lake Forest	Presbyterian	1857	Ernest A Johnson	32a	589	225	289	.. .	75	7,450	1,208,000	25,461	1,613,920
Loyola Univ , Chicago	Catholic	1870	James T Hussey	825	4,866	2,087	2,779	383	1,644	7,015	1,058 940	10,982	5,542,312
MacMurray Coll for Women, Jacksonville	Methodist	1846	Clarence P McClelland	(u)	1,015	0	738	6	152	76,108	3,750,346	228,995	2,183,364
Monmouth Coll., Monmouth	Presbyterian	1853	James H Grier	47	536	169	367	7	35	10,187	2,008,000	141,816	1,531,772

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Mundelein Coll , Chicago	Catholic	1929	Sister Mary Josephine	62	1,203	0	1,031		172	$ 27,060	$	$ 4,606	$ 2,727,000
National Coll of Education, Evanston	Private	1886	Edna Dean Baker	48	747	0	747		374	8,368	141,882	59,516	1,002,580
North Central Coll , Naperville	Evangelical	1861	C H Geiger	40a	630	310	320		113		1,200,000	21,919	1,415,704
Northern Illinois State T. C , DeKalb	State	1895	Karl L Adams	76	1,242	484	758		370			457,790	1,878,964
Northwestern Univ , Evanston and Chicago	Methodist	1851	Franklyn B Snyder	1,724	22,270	12,237	10,033	1,473	7,819	150,000	61,304 000	1,269,835	28,578,000
Principia Coll , The, Elsah	Private	1898	Frederic E Morgan	25	377	140	237			19,218	866,650	301,426	3,248,557
Rockford Coll., Rockford	Private	1847	Mary Ashby Cheek	43a	566	0	566		90		1,000,000		1,000,000
(Total includes students taking Community courses)													
Rosary Coll , River Forest	Catholic	1901	Sister Mary Peter	68	737	1	736		360	19,346	100,000	33,000	2,979,427
Saint Francis Coll of, Joliet	Catholic	1925	Sister Mary Aniceta	47	763	0	359		404	21,745	16,000	4,350	1,829,000
St. Francis Xavier Coll for Women, Chicago	Catholic	1912	Sister Mary Huberta	45	769	0	769		394	8,610		7,000	1,460,027
Southern Illinois Normal Univ , Carbondale	State	1869	Chester F Lay	135	3,044	1,293	1,751	60	741	65,873	970,018		2,213,750
Western Illinois State T C., Macomb	State	1899	F A Beu	80	1,672	448	1,224	39	642	22,000			2,489,956
Wheaton Coll., Wheaton	Private	1853	V Raymond Edman	115a	2,190	828	1,362	76	829	38,450	740,000	140,000	2,038,000
Indiana													
Ball State T C , Muncie	State	1918	John R Emens	110a	1,881	681	1,200	163	557b	27,715	597,500	905	5,321,281
Butler Univ., Indianapolis	Disc of Christ	1855	M O Ross	110	2,569f	1,600	969	162b	541	14 000	3,000,000	1,000,000	3,937,000
DePauw Univ , Greencastle	Methodist	1837	Clyde E Wildman	100a	1,675	690	985	6	262	37,740	6,099,657	84,192	3,563,474
Earlham Coll , Richmond	Friends	1847	William Cullen Dennis	382	531	254	277		175	17.353	1,477.850	54,591	812,175
Evansville Coll , Evansville	Methodist	1854	Lincoln Bell Hale	86a	1,633	1,023	610	0		11,545	400,000	431,407	725,000
Franklin Coll., Franklin	Baptist	1834	William Gear Spencer	30	295	127	168		52	16,000	1,150 000	20,000	692,000
Goshen Coll , Goshen	Mennonite	1894	Ernest E Miller	32a	454	148	306	14	107	15,933	185,653	77,360	284.844
Hanover Coll , Hanover	Presbyterian	1827	Albert George Parker, Jr	18	294	107	187		95	7,400	1,800,000	200,000	1,300,000
Indiana State T C , Terre Haute	State	1865	Ralph N Tirey	105	1,946	968	978	170	441	2,847	696,635		5,477,510
Indiana Univ , Bloomington	State	1820	Herman B Wells	606	9,992	5,573	4,419	1,575	2,788	7,104	2,932,305	180.213	22,181.397
Manchester Coll , North Manchester	Brethren	1889	V F Schwalm	38	732	300	432		139	44,661	511,130	87,394	795,077
Notre Dame, Univ of, Notre Dame	Catholic	1842	J Hugh O'Donnell	334a	3,389	3,389	0	110		259,977	3,654,210	110,324	15,558,292
Purdue Univ , Lafayette	State	1869	Frederick L Hovde	948a	10,119	7,737	2,382	697		70,250	3,400,353	838,408	19,500,000
Rose Polytechnic Inst , Terre Haute	Private	1874	Donald B Prentice	30	427	427	0	0	427	2,500	2,500,000	200,000	620,000
St. Mary-of-the-Woods Col , St. Mary-of-the-Woods	Catholic	1840	Mother M Bernard	44	1,428	0	367		1,061		475,000		
St. Mary's Coll , Notre Dame	Catholic	1844	Sister M Madeleva	65a		0	827	50	251	9,500		117,000	2,008,671
Valparaiso Univ , Valparaiso	Lutheran	1859	Otto Paul Kretzmann	65	1,065	472	593		105	40,318	499,117	247 099	1,676,000
Wabash Coll , Crawfordsville	Private	1832	Frank Hugh Sparks	42	500	500	0			2,159	2,783,000	271,121	1,153,155
Iowa													
Briar Cliff Coll , Sioux City	Catholic	1930	Sister Jean Marie	26	326	0	326			8,000	50 000	1.000	300,000
Central Coll , Pella	Reformed	1853	G. T. Vander Lugt	30	263	119	144	0	120		390,000	48,936	685,885
Clarke Coll., Dubuque	Catholic	1843	Sister Mary Ambrose	42a	714	0	396		318	13,395	234,848		1,850,000
Coe Coll , Cedar Rapids	Presbyterian	1881	Byron S Hollinshead	50	856	283	573		224	28,966	1,917,089	111,184	1,295,372
Cornell Coll., Mount Vernon	Methodist,	1853	Russell D Cole	50	781	225	556		105	39,435	2,539,767	184.000	1,308,949
Drake Univ., Des Moines	Private	1881	Henry Gadd Harmon	133a	2,101	1,369	732	2	712	63,595	1,635.457	365,263	2,442,398
Dubuque, Univ. of, Dubuque	Presbyterian	1852	Dale D Welch	45	697	340	255	29	102	28 409	730,533	62,397	721,729
Grinnell Coll , Grinnell	Congregational	1846	Samuel N Stevens	60	640	221	419	2	92	45 496	2,647,714	268,984	2,484,611
Iowa, State Univ of, Iowa City	State	1847	Virgil M Hancher	695a	10,027	5,612	5,015	16,746	55,246	339,913	1,283,964	906,554	23,695,523

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Iowa State Coll., Ames	State	1858	Charles E Friley	654	8,607	6,016	2,591	763	1,404	$158 600	$1,157,000	$ 129,201	$15,329,676
Iowa State T C, Cedar Falls	State	1876	Malcolm Price	160	3 038	700	2,338	60	1,444	10,560	.	. .	4,287,165
Iowa Wesleyan Coll., Mount Pleasant	Methodist	1842	Stanley B Niles	26	388	149	239	0	115	2,752	558,104	19,847	817,420
Loras Coll., Dubuque	Catholic	1839	M J Martin	90a	831f	546	285	...	653	. ..	1 000 000	1,000,000	. . .
Luther Coll., Decorah	Lutheran	1861	O J H Preus	36	418	217	201	. ..	263	9,277	535,000	35 546	1,500,000
Morningside Coll., Sioux City	Methodist	1889	Earl A Roadman	55	877	427	450	.	527	11,978	482,989	105,453	729,137
Parsons Coll., Fairfield	Presbyterian	1875	Herbert Carleton Mayer	28	353	119	234	5	128	2,470	547 045	30,093	574,576
St Ambrose Coll., Davenport	Catholic	1882	Ambrose J Burke	66a	1,676	786	614	.. .	276		740 000	. .	1,195,921
Simpson Coll., Indianola	Methodist	1860	Edwin E Voigt	30	668	202	466	....	227	10,966	1,457,240	52,889	597,807
Kansas													
Baker Univ., Baldwin	Methodist	1858	Nelson Paxson Horn	52	376	146	230	.	56	10,812	1,369,623	81,520	742,859
Bethany Coll., Lindsborg	Lutheran	1881	Emory K Lindquist	34	350	119	231	26	76	7,331	446,651	32,303	538,677
Bethel Coll., North Newton	Mennonite	1887	Ed G Kaufman	37	275	92	183	...	99	1,794	600,000	56,000	585,000
Fort Hays Kansas State Coll., Hays	State	1901	Lyman Dwight Wooster	69	1,072	297	775	40	610	15,000	. .	276 296	1,500,000
Kansas, Univ. of, Lawrence	State	1865	Deane W Malott	500	6,295	3 929	2,366	359	1,398	50.000	256.000	4,472 810	10,063,319
Kansas State Coll., Manhattan	State	1863	M S Eisenhower	225	5,029	3,250	1,779	331	2,785	188,450	547 841	2,886,937	4,841,717
McPherson College, McPherson	Brethren	1887	W W Peters	31	473	158	315	0	144	4.946	384,000	20,600	540.000
Marymount Coll., Salina	Catholic	1922	Mother Mary Chrysostom	35	499	0	254	....	245	15,416	.....	.....	1,110,890
Mount St Scholastica Coll., Atchison	Catholic	1924	Mother Lucy Dooley	42	728	0	728	. ..	370	...	.. ...	.....	.....
Ottawa Univ., Ottawa	Baptist	1865	Andrew B Martin	24a	264	102	162	....	99	13,435	435 747	46,659	731,624
St. Benedict's Coll., Atchison	Catholic	1858	Cuthbert McDonald	25	250	250	0	0	0	0	96,000	180,000	3,000,000
Saint Mary Coll., Xavier	Catholic	1932	Arthur M Murphy	47	815	0	815	....	376	. ..	.. .	.. ..	.....
Southwestern Coll., Winfield	Methodist	1885	Mearl P Culver	37	392	123	269	....	113	11,704	604,225	40,000	614,354
State T. C., Emporia	State	1863	David L MacFarlane	107	1,321	436	885	48	607	3,640	250,000	11,000	2,242,000
State T. C., Pittsburgh	State	1903	Rees H Hughes	110	1,518	808	710	24	1,983	.... ..	. ....	263,925	2,750,000
Washburn Municipal Univ., Topeka	Municipal	1865	Bryan Sewall Stoffer	78	1,557	803	754	88	207	11,684	1,377,372	58 448	1,315 387
Wichita, Municipal Univ. of, Wichita	Municipal	1926	W. M Jardine	90	3,770	1,264	936	109	1,570	3,200	94,229	205,829	1,964,822
Kentucky													
Asbury College, Wilmore	Independent	1890	Z T Johnson	31	829	285	544	....	240	. . .	748 000	34,871	1,074,708
Berea Coll., Berea	Private	1855	Francis S Hutchins	87a	873	280	593	....	54	12,000	11,000,000	93,000	5,450,000
Centre Coll of Kentucky, Danville	Presbyterian	1819	James H Hewlett	30	301	162	139	0	46	7 095	1,992,460	31,082	1,086,273
Eastern Kentucky State T. C., Richmond	State	1906	W F O Donnell	82	1,161	419	742	20	361	.	....	280,000	3,087.350
Georgetown Coll., Georgetown	Baptist	1829	S S Hill	30	516f	187	329	.	101	8,908	562,145	119,888	452,660
Kentucky, Univ. of, Lexington	State	1865	Herman Lee Donovan	350a	6,105	3,431	2,674	712b	1,539b	12.925	189,258	176 963	9,850,763
Kentucky State Coll., Frankfort [N]	State	1886	R B Atwood	26	669	226	443	...	174	15,000	.....	18,000	1,250,000
Louisville, Univ of, Louisville	Municipal	1837	F. W. Stamm (e).	447a	5,849	3,814	2.035	137	1,613	10,000	1,100,000	102,000	2,100,000
Louisville Municipal Coll., Louisville	Municipal	1931	E W Jacobsen	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)
Nazareth Coll., Louisville	Catholic	1920	Sister Mary A Coady	61	1,245	0	1,245	152	630	3,500	... ..	9,500	691,091
State T. C., Morehead	State	1923	Wm H Vaughn	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)
State T. C., Murray	State	1923	Jas. H Richmond	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)
Transylvania Coll., Lexington	Disciples	1780	Raymond F McLain	22	378	197	181	...	129	3,150	838,486	20,818	698,282
Union Coll., Barbourville	Methodist	1879	Conway Boatman	28a	482	118	364	0	212b	8,350	510,654	24,669	525,897
Western Kentucky State T C., Bowling Green	State	1906	Paul L Garrett	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)

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Louisiana													
Centenary Coll of Louisiana, Shreveport	Methodist	1825	Joe J Mickle	46	1,103	587	516	0	249b	$ 14,000	$ 473,483	$ 117,000	$ 1,273,065
Dillard Univ, New Orleans [N]	Cong & Meth	1930	Albert Walter Dent	(u)	454	91	363	...	...	7,039	3,002,108	117,812	1,780,302
H Sophie Newcomb Memorial Coll, New Orleans	Private	1886	Logan Wilson	83	845	0	845	...	....	.....	2,311,387	... ..	2,611,554
Louisiana Coll, Pineville	Baptist	1906	Edgar Goodrich	30	667	0	347	320	405	(u)	(u)	(u)	(u)
Louisiana Polytechnic Inst, Ruston	State	1894	Claybrook Cottingham	110	1,938f	1,176	762	...	1 133	45 599	. . ..	34,338	3,843,328
Louisiana St. U & A & M Coll, Baton Rouge	State	1860	W B Hatcher	532	7,351	4,915	2,436	419	4,708	29 948	14,555	41,935	25,859,416
Loyola Univ., New Orleans	Catholic	1912	T J Shields	180	2,164	1,002	903	...	390	39,758	5,331,675	48,672	3,009,452
Northwestern St Coll, Natchitoches (Formerly Louisiana State Normal College)	State	1884	Joe Farrar	120	2,672	697	1,114	...	861	33,084	.....	632,810	3,756,014
Southern Univ, & A & M Coll, Scotlandville [N]	State	1880	Felton G Clark	121	1,649	645	1,004	...	320	(u)	(u)	(u)	(u)
Southwestern Louisiana Inst, Lafayette	State	1900	Joel Lafayette Fletcher	141	4,265f	2,811	1,454	..	1,755	62,500	.....	.....	3,594,337
Tulane Univ. of Louisiana, New Orleans.	Private	1834	Rufus Carrollton Harris	790	6,973	4,910	2,063	902	2,239	. . .	10,884 532	....	9,181 875
Xavier Univ., New Orleans [N.]	Catholic	1925	Mother M Agatha	68	627	212	415	9b	423	2,630	497,709	204,665	1,302,792
Maine													
Bates Coll., Lewiston	Private	1864	Charles Franklin Phillips	50a	702	298	404	..	..	20,055	2,133,164	279,000	1,494,489
Bowdoin Coll, Brunswick	Private	1794	Kenneth C M Sills	55	450	450	0	....	650	35,000	8,844,995	132,288	3,835,046
Colby Coll, Waterville	Private	1818	Julius Seelye Bixler	56	654	264	390	.	....	27,447	3,740,940	233,986	2,275,332
Maine, Univ. of, Orono	State	1865	Arthur A Hauck	154	2,525	1,396	1,129	77	441	44,500	1,234,768	393,572	6,077,439
Maryland													
Goucher Coll, Baltimore	Private	1885	David Allan Robertson	80	620	0	620	....	....	21,000	2,096,919	906,999	3,327,141
Hood Coll., Frederick	Evan and Ref.	1893	Henry Irvin Stahr	52	483	0	483		....	24,688	864,959	113,993	1,480,038
Johns Hopkins Univ, Baltimore	Private	1876	Isaiah Bowman	840a	4,252	2,888	1,364	810b	343b	171,663	33,447,498	2,248,329	14,563,423
Loyola Coll, Baltimore	Catholic	1852	Edward B Bunn	35	317	317	0	..	..	2,700	92,000	60.000	2,037,815
Maryland, Univ of, College Park	State	1807	H C Byrd	812	6,080	3,914	2,166	772	465	55,000	4,114,000	850,000	15,780,705
Morgan State Coll, Baltimore [N]	State	1867	D O W Holmes	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)
Mount St Mary's Coll, Emmitsburg	Catholic	1808	John L Sheridan	35	223	223	0	..	60	8,790	307,789	0	1,610 340
Notre Dame of Maryland, Coll of, Baltimore	Catholic	1895	Sister Mary Frances	55	595	0	595	..	141	13,250	50,329	2,832	1,856,004
St. Joseph s Coll, Emmitsburg	Catholic	1809	Francis J Dodd	28	173	0	173	25	.	...	. . ..	.....	.....
State T. C, Salisbury	State	1925	J D Blackwell	13	163	32	131	0	130	. . .	0	0	823,820
State T C., Towson	State	1866	M Theresa Wiedefeld	(u)	267	8	259	..	100	. . .	. .	. . .	1,656,658
U.S. Naval Academy, Annapolis	Federal	1845	Vice Adm A W Fitch	419	2,969	2,969	0	..	..	Federal	Federal	Federal	35,000,000
Washington Coll, Chestertown	Private	1782	Gilbert W Mead	30	450	270	180	...	..	. . .	75 000	125.000	1,000,000
Western Maryland Coll, Westminster	Methodist	1867	Fred G Holloway	55	575	164	411	4	102	15,995	900,000	53,400	2,069,000
Massachusetts													
American International Coll., Springfield	Private	1885	William Gellermann	50	1,621	810	811	0	126b	. . .	... ..	... ..	.....
Amherst Coll., Amherst	Private	1821	Stanley King	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)
Boston Coll., Boston	Catholic	1863	Wm L Keleher	170	3,907	2,424	1,483	677	431	. . .	... ..	... ..	6,343,250
Boston T C of the City of, Boston	State	1852	Wm H J Kennedy	26	249	0	247	2	.	. . .	. .	.... .	... ..
Boston Univ, Boston	Private	1839	Daniel L Marsh	800a	17,119	7,181	9,938	2,773	3,050	67,920	6,148 287	872,903	6,779,220
Clark Univ, Worcester	Private	1887	Wallace W Atwood	40	685	264	327	94	171	. .	7,300,000	.	2,000,000
Eastern Nazarene Coll, Wollaston	Nazarene	1918	Samuel Young	28	477	180	297	21	110	2.000	.....	92,600	407,000

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Emmanuel Coll , Boston	Catholic	1919	Sister Teresa Patricia	71	725	0	725	....	450	$ 10,000	$ ..	$	$ 1,500,000
Harvard Univ , Cambridge	Private	1636	James Bryant Conant	1,721	4,287	4,069	218	2,776	....	423,738	159,336,498	3,555,405	. ...
Holy Cross, Coll of the, Worcester	Catholic	1843	William J Healy	95	1,404	1,404	0	...	....	5 700	600.000	35.000	4,858.700
Massachusetts Inst of Technology, Cambridge	Private	1861	Karl Taylor Compton	582	1,968	1,899	69	378	...	146,000	45,988.508	2,549,969	17,310,171
Massachusetts State Coll , Amherst	State	1863	Hugh P Baker	150	1.739	532	603	110	484	15,237	453,897	47,278	4,579,270
Mount Holyoke Coll , South Hadley	Private	1837	Roswell G Ham	160	1,149	0	1,149	36	0	155,634	6,187,615	204,808	6,311,971
Northeastern Univ., Boston	Private	1898	Carl S Ell	274	7,585	6,933	652	. ..	1,737	13,311	1,119,659	214,696	2,520,098
Our Lady of the Elms, Coll. of, Chicopee	Catholic	1928	Thomas M O'Leary	25	300	0	300	...	97	. . .	. . .	.....	.....
Radcliffe Coll , Cambridge	Private	1879	Wilbur Kitchener Jordan	.	1.353	0	1,353	420	175	63,683	7,071,243	645,333	3,338,613
(The Harvard faculty of Arts and Sciences is the Radcliffe faculty)													
Regis Coll., Weston	Catholic	1927	Sister Honora	52	583	0	583	....	370	... ..	. . ..	.....	.....
Simmons Coll., Boston	Private	1899	Bancroft Beatley	94	1,551f	11	1,540	182	161	33,200	3,392.883	76,290	2,517,660
Smith Coll , Northampton	Private	1871	Herbert Davis	290	2.344	0	2,037	76	231	150,939	6,882,230	204,922	9,792,248
Springfield Coll , Springfield	Y.M C.A.	1885	Paul M Limbert	50a	250f	250	0	80	155	0	1,095.786	21,828	1,743,567
State T. C., Bridgewater	State	1840	John J Kelly	42	392	30	362	....	....	.....	15,000	.....	1,418,741
State T C., Fitchburg	State	1895	William J. Sanders	42a	231t	97	134x	12	81	370	0	0	900,000
State T. C., Framingham	State	1839	Martin F. O'Connor	34	500	0	500	0	0	3,261	0	183,399	1,000,000
State T C., North Adams	State	1894	Grover C Bowman	20	213	45	168	35	110	500	.....	74,770	500,000
State T. C , Worcester	State	1871	Albert Farnsworth (e)	22	114	3	111	0	0	150	0	0	750.000
Tufts Coll , Medford	Private	1852	Leonard Carmichael	704a	2.404	1,814	590	95	847	71,445	9,558,400	881,814	4,514,031
Wellesley Coll , Wellesley	Private	1870	Mildred McA Horton	200a	1,597	0	1,597	41	....	170.000	12,756,841	251 289	13,141,858
Wheaton College, Norton	Private	1834	A Howard Meneely	74a	475	0	475	....	....	31,623	1,236,414	22,870	2,776,660
Wheelock Coll , Boston	Private	1889	Winifred E Bain	25	305	0	305	....	....	2,500	. ....	. ....	.....
Williams Coll , Williamstown	Private	1793	James Phinney Baxter, III	95	764	764	0	0	0	44 000	12,453.273	260,000	6,185,076
Worcester Polytechnic Inst , Worcester	Private	1865	Wat Tyler Cluverius	56	598	598	0	12	....	8,853	4,931,391	....	2,645,458
Michigan													
Albion Coll , Albion	Methodist	1835	William W Whitehouse	53	812	357	455	4	....	7,104	2,678,223	185,654	2,175,678
Alma Coll , Alma	Presbyterian	1886	Roy W Hamilton	35	518	335	183	0	160	5,000	147 242	35,389	571,000
Calvin Coll , Grand Rapids	Chr Ref. Ch	1876	Henry Schultze	30	626	313	313	.. .	285	. .	195,000	125 000	585,000
Central Michigan Coll of Ed , Mount Pleasant	State	1892	C. L Anspach	156	4 090	1,079	3 011	71	433	12,000	.	2,400	4,850 000
Detroit Univ of, Detroit	Catholic	1877	Wm J Millor	241a	4,551	2,949	1,602	129	1,474	247	1,610,000	134.105	10.645,000
Emmanuel Missionary Coll., Berrien Springs	Adventist	1874	A W Johnson	40	590	262	328	...	197	5,299	425.975	36,118	1,155,359
Hillsdale Coll , Hillsdale	Private	1844	Harvey L Turner	40	428	149	279	.	125	12,000	732,581	275 000	800,000
Hope Coll , Holland	Reformed	1866	Irwin J Lubbers	45	700	364	336	.	91	.	1,035,498	87,936	1,353,896
Kalamazoo Coll , Kalamazoo	Baptist	1833	Paul Lamont Thompson	50	429	184	245	106	....	13,756	1,133,272	1,133.272	1,557.654
Marygrove Coll , Detroit	Catholic	1910	Sister M Honora	82	803	0	803	. . .	796	10 014	125,500	30,015	4,045,630
Michigan, Univ of Ann Arbor	State	1817	Alexander Grant Ruthven	795	22,753	13,559	9,194	4,418	2,887	258,760	17,258,715	957,725	63,894,292
Michigan Coll of Min & Tech., Houghton.	State	1885	Grover C Dillman	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)
Michigan St Coll of Agric & Appl Sci , East Lansing	State	1855	John Alfred Hannah	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)
Michigan State Normal Coll , Ypsilanti	State	1849	J M Munson	162	2,407	589	1,820	73	652	75,420	70.000	818,334	6,291,063
Nazareth Coll , Nazareth	Catholic	1897	Sister M Kevin	45	365	0	365	....	232	.....	.....	.....	.....
Northern Michigan Coll. of Education, Marquette	State	1899	Henry A Tape	58	474	214	260	....	372	4,830	.....	.....	816,038

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Siena Heights Coll, Adrian	Catholic	1919	Mother Mary Gerald	29	310	0	310		600	$	$	$	$
Wayne Univ, Detroit	Municipal	1868	David D Henry	1,032a	20,395	9,993	10,402	947	3,199				
Western Michigan Coll of Educ, Kalamazoo	State	1903	Paul V. Sangren	254	4,144f	1,900	2,244	113	514	20,058	995,800		3,600,000
Minnesota													
Carleton Coll, Northfield	Private	1866	Laurence M Gould	71a	891	191	695	5		47,375	3,606,303	93,402	4,196,299
Concordia Coll, Moorhead	Lutheran	1891	J. N Brown	55	728	180	548		65	7,830	568,151	30,543	801,080
Gustavus Adolphus Coll., St Peter	Lutheran	1862	Edgar M Carlson	51	744	413	331		161	11,249	554,133	63 800	951,673
Hamline Univ, St. Paul	Methodist	1854	Charles Nelson Pace	51	951	376	575	4	74	17,418	4,113 385	723,404	1,559,504
Macalester College, St Paul	Presbyterian	1885	Charles J Turck	104	1,065	485	580	0	456	17,155	2,300,000	170,000	1,707,125
Minnesota, Univ of, Minneapolis	State	1851	James L. Morrill	2,154	55,348	33,591	21,757	2,685	6,155	36,191	29,410,805	2,326,206	43,272,578
Saint Benedict, Coll of, Saint Joseph	Catholic	1913	Mother Rosamond	38	242	0	242		154	14,849	81,553		522,102
St. Catherine, Coll. of, St. Paul	Catholic	1911	Sister Antonius	70	1,567	0	1,567		295	67,677	645.816	96,356	2,510,810
St. Mary's Coll, Winona	Catholic	1913	Brother Joel Stanislaus	32	469	469	0		227	9,925		40,000	1,460,000
St Olaf Coll, Northfield	Lutheran	1874	C. M Granskou	74	1,114	387	727			23,817	1,030,528	479,020	2,338,124
St Scholastica, Coll of, Duluth	Private	1912	Mother Athanasius	51a	405	0	405f	0	166	7,902	120,360	10,996	2,026,265
St. Teresa, Coll. of, Winona	Catholic	1910	Sister M Emanuel	70a	922	0	922		320				
St. Thomas, Coll of, St Paul	Catholic	1885	Vincent J Flynn	50a	991	991	0	0	0	0	302,819	63,042	2,601,903
State T. C., Bemidji	State	1919	A C. Clark	39	337	176	161		292	3,600			1,200,000
State T. C., Duluth	State	1895	Raymond C Gibson	50	748	221	527	26	249	5,300	194,332	500	818,900
State T. C., Monkato	State	1867	C L Crawford	55	691	219	472	0	493	(u)	0	(u)	1,300,000
State T C, Moorhead	State	1887	Otto W Snarr	52	588	104	484		221				1,125,000
State T. C, St Cloud	State	1869	Dudley S Brainard	65	681	197	484	15	930		0	0	3,000,000
State T C., Winona	State	1858	Nels Minne	41a	381	117	264	0	249	4,080	183,100		1,378
Mississippi													
Alcorn A. & M. Coll., Alcorn	State	1871	W H. Pipes	39	265	70	195	0	233		209,871		847,756
Blue Mountain Coll, Blue Mountain	Baptist	1873	Lawrence T Lowrey	28	413	0	413		115	5,620	500,000	328 000	554,500
Delta State T. C, Cleveland	State	1924	William Marion Kethley	36	589	296	293		319	5,000	150,000	15,000	1,500,000
Millsaps Coll, Jackson	Methodist	1892	Marion L Smith	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)
Mississippi, Univ of, University	State	1844	Thomas L Bailey	126	2,005	1,364	641	48	649		9,400	0	4,753,982
Mississippi Coll, Clinton	Baptist	1826	D M Nelson	35	581	369	212	0	412	0	717,383	0	846,915
Mississippi Southern Coll, Hattiesburg	State	1910	R C Cook	54	811	327	484		707				1,614,599
Mississippi State Coll., State College	State	1878	Fred T Mitchell	154	2,628	1,877	175	55	684		239,789		6,262,716
Mississippi State Coll for Women, Columbus	State	1884	Burney L Parkinson	79	1,079	0	1,079			13,392	152,440		3,494,655
Tougaloo College, Tougaloo [N]	Congregational	1869	Judson L Cross	17	217	44	173		130	5,309	47,008	91,752	620,349
Missouri													
Central Coll, Fayette	Methodist	1854	Harry S DeVore	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)
Central Missouri State Coll, Warrensburg (c)	State	1870	G W Diemer	83	2,415	801	1,614		938	12,513	287,833	322	2,000,000
Culver-Stockton Coll, Canton	Disc of Christ	1853	Walker H McDonald	29	329	90	239		87	5,976	855,732	2,375	518,027
Drury Coll, Springfield	Private	1873	James F Findlay	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)
Fontbonne Coll, St Louis	Catholic	1917	Sister Mary B O'Neill	49	571	0	571		498				877,821
Harris T. C. (including Jr College Div) St Louis	Municipal	1857	Charles H Philpott	24	462	97	365						
Kansas City, Univ. of, Kansas City	Private	1929	C R Decker	259a	3,826	2,017b	1,809	573	1,748	15,000	1,500	450,000	2,200,000

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Kansas City T. C , Kansas City	Municipal	1911	J C Bond	(u)	(u)	(u)	(u)	(u)	(u)	$ (u)	$ (u)	$ (u)	$ (u)
Lincoln Univ., Jefferson City [N]	State	1866	Sherman D Scruggs	72	1,101	333	768	7	462	18,000		489,574d	1,350,000
Lindenwood Coll. for Women, St. Charles	Presbyterian	1827	Guy C Motley	53	516	0	516	0	0	15,000	4,000,000	0	2,000,000
Maryville Coll , St. Louis	Catholic	1872	Mother Marie O Mouton	34	308	0	308		23	17,978			1,894,836
Missouri, Univ of, Columbia	State	1839	Frederick A Middlebush	575	7,418	4,852	2,566	865	4,500	29,270	2,365,000	153,135	19,657,170
Missouri Valley Coll Marshall	Presbyterian	1889	J Ray Cable	30	427	237	190		72	2,000	581,141	25,000	1,000,000
Northeast Missouri State T C., Kirksville	State	1867	Walter H Ryle	60	1,327	747	580		869			12,000	2,813
Northwest Missouri State T. C , Maryville	State	1906	J W Jones	53	1,836	561	1,275		632				2,000,000
Park Coll , Parkville	Presbyterian	1875	George Irwin Rohrbough	40	449	119	330	2	39	2,985	1,846,400	62,000	1,710,000
Rockhurst Coll., Kansas City	Jesuit Order	1910	Thomas M Knapp	23	157	157	0	0	320	3,175		40,250	884,372
St. Louis Univ , St Louis	Catholic	1818	Patrick J Holloran	857a	7,100	3,914	3,186	866	4,062	79,306	10,725,035	84,719	7,025 714
Southeast Missouri State Coll , Cape Girardeau (c)	State	1873	Walter Winfield Parker	64	1,485	620	865	0	1,044				1,510,000
Southwest Missouri State Coll , Springfield (c)	State	1905	Roy Ellis	86	1,255	596	659		1,461	7,680	333,960		2,831,765
Stowe Teachers and Jr. Coll , St. Louis	State	1890	Ruth M Harris	25	600	100	500	0	0	0	0	0	500,000
Tarkio Coll , Tarkio	Presbyterian	1883	M Earle Collins	23	301	105	196	0	66	10,000	665,000	45.000	480,955
Washington Univ , St Louis	Private	1853	Arthur H Compton	693a	9,159	5,612	3,547	192	1,591	98,886	23,442,582	2,737 582	16,168,259
Webster Coll , Webster Groves	Catholic	1915	George F Donovan	56	455	0	455		220				
Westminster Coll , Fulton	Presbyterian	1853	Franc L McCluer	29	216	216	0		171	6,500	616,000	37,000	735,000
William Jewell Coll., Liberty	Baptist	1849	Walter Pope Binns	41	331	119	212		270		1,450,056	326,856	1,314,513
Montana													
Billings Polytechnic Inst , Polytechnic	Church	1908	William D Copeland	22	470	120	350	0	135				1,500,000
Carroll Coll , Helena	Catholic	1910	Emmet J Riley	19	397	308	89		215		500.000		1,000,000
Eastern Montana State Normal School, Billings	State	1927	A G Peterson	17	329	65	264		198		76,900		513,080
Great Falls Coll of Educ , Great Falls	Catholic	1932	J J Donovan	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)
Montana School of Mines, Butte	State	1893	Francis A Thomson	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)
Montana State Coll. Bozeman	State	1893	R R Renne	163	2 201	1,028	1,171	93	598	4,500	1,195,409	1,302	3,916,360
Montana State Normal Coll , Dillon	State	1893	Sheldon E Davis	15	180	34	146		123	100	63,500		900,000
Montana State Univ., Missoula	State	1893	Ernest O Melby	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)
Nebraska													
Creighton Univ , Omaha	Catholic	1878	William H McCabe	260a	2,679	1,529	1,150	59b	380b	9,000	2,322.500	73,700	2,575,000
Doane Coll , Crete	Congregational	1872	Bryant Drake	24a	240	99	141			10,937	1,305,981	25,132	514,088
Duchesne Coll , Omaha	Catholic	1881	Mother Helen Casey	19	170	0	170			3,500			600,000
Hastings Coll , Hastings	Presbyterian	1882	Wm Marshall French	38	633	262	371		280	4,481	667,949	121 327	486,519
Nebraska, Univ of, Lincoln	State	1869	Reuben G Gustavson	450	8,668	4,828	3,840	872	1,484	25,000	5,300 000	27,000	15,500,000
Nebraska Wesleyan Univ , Lincoln	Methodist	1887	John L Knight	37a	472	171	301		240	7,000	945,312	25,308	631,999
Omaha, Municipal Univ of, Omaha	Municipal	1909	Rowland Haynes	91a	5,500	2,844	2,656	131	1,029	17,209	141,360	0	1,259,688
State T. C., Chadron	State	1911	Wiley G. Brooks	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)
State T C., Kearney	State	1905	Herbert L Cushing	50	423	183	240	6	546	10,466	230,000		1,197,000
State T C , Peru	State	1867	W. L Nicholas	53	560	214	346	4	350	3,222	217,732		1,410,228
State T C , Wayne	State	1910	J T Anderson	53	792	614	178	13	427	1,500			1,500,000
Union Coll , Lincoln	Adventist	1891	E E Cossentine	45	922	407	515		265	500		25,754	572,319

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Nevada													
Nevada, Univ. of, Reno	State	1886	J O. Moseley	161	1,408	747	661	41	219	$ 100	$ 81,500	$	$ 3,513,000
New Hampshire													
Dartmouth Coll., Hanover	Private	1769	John Sloan Dickey	259	2,647	2,647	0	.	....	29,000	23,292,248	816,489	11,258,131
Keene T C., Keene	State	1909	Lloyd P Young	44	252	56	196	0	51	0	128,653	0	1,000 000
New Hampshire, Univ of, Durham	State.	1866	Harold W Stoke	190	3,806	2,536	1,270	56b	1,673b	46,500	1,960,000	5,000	6,250,000
Plymouth T. C , Plymouth	State	1870	Ernest L Silver	26	129	8	121	. .	0	.....	....	... ..	500,000
Rivier Coll , Nashua	Catholic	1933	Sister Marie Madelaine Getty	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)
St. Anselm's Coll., Manchester	Catholic	1893	Bertrand Dolan	34	221	221	0	. ..	....	..	. . ..	.....	1,000,000
New Jersey													
Drew Univ , Madison	Methodist	1867	Arlo Ayres Brown	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)
Georgian Court Coll , Lakewood	Catholic	1908	Mother Mary John	32	235	0	235	....	90	.	. .	.. ...	.....
Newark, Univ. of, Newark	Private.	1933	George H Black	57a	2,009	1 475	534	. ..	260b		250,000	15,000	500,000
Newark Coll., of Eng , Newark	State	1881	Allan R Cullimore	70a	1,656	1 626	30	113b	460b	2,177	58,500	207,770	1,226,200
Princeton Univ., Princeton	Private	1746	Harold Willis Dodds	346	2,455	2,455	0	370	702	168,873	41,388,709	3,417,602	. . . .
Rutgers Univ , New Brunswick (Includes New Jersey College for Women)	State	1766	Robert C Clothier	715a	10,801	7,637	3,164	114	2,070	244,371	6,060,361	363,377	21,206,334
Saint Elizabeth, Coll. of, Convent Station	Catholic	1899	Sister Marie José Byrne	79	1,005	0	1,005		412	19,925	...	.. . .	3,100,000
St. Peter's Coll., Jersey City	Catholic	1872	Vincent Hart	27	401	108	107		176	1,600	30,000	6,123	800,000
Seton Hall Coll., S Orange	Catholic	1856	James F Kelley	79	3,131	1,170	1,761	200	1,853		.....	. .	1,000,000
State T. C., Glassboro	State	1922	Edgar F. Bunce	30	410	160	250	. .	92	4,651	.....	196,026	1,250,000
State T C , Jersey City	State	1929	Chris C Rossey	38	414	18	414		160	7,423	.....	. . .	1,285,000
State T. C , Montclair	State	1908	H A Sprague	65	743	82	661	207	411	2,365,539	.....	175,000	2,000
State T. C , Newark	State	1913	John B Dougall.	40	422	54	368	.	200	6,889	.....	270,170	687,000
State T. C , Paterson	State..	1855	C S Wightman	35	326	91	235	. ..	71	4,990	. ....	....	475,000
State T C , Trenton	State	1855	Roscoe L West	72	792	127	665		102	31,385	.....	550,703	3,000,000
Stevens Inst. of Technology, Hoboken	Private	1870	Harvey Nathaniel Davis	66	1,051	1,051	0	346	.	10,291	.	....	2,767,000
Upsala Coll., East Orange	Lutheran	1893	Evald B. Lawson	37	703	396	307	.	405	9,133	250,000	60,000	500,000
New Mexico													
New Mexico, Univ. of, Albuquerque	State	1889	John Philip Wernette	150	3,405	2,030	1,375	383	370b	4,182	949,100	15,000	2,839,941
New Mexico Coll. of A. & M. Arts, State College	State	1889	Hugh M. Milton.II	86	621	397	224	0	156	31,825	519,619	300	1,621,556
New Mexico Highlands Univ., Las Vegas	State	1893	Edward Eyring	46	1,546	409	212	141	784	12,580	57,363	3,817	981,045
State T. C., Silver City	State	1893	Haddon W. James	55	277f	143	134	0	231	10,885	0	0	783,948
New York													
Adelphi Coll., Garden City	Private	1896	Paul Dawson Eddy	84	1,764	600	1,064	. .	700		500,000	38,749	2,344,342
Alfred Univ , Alfred	Private	1836	J Edward Walters	64a	568t	288	276	8	364	16,500	1,035,787	69,754	1,149,050
Bard Coll., Annandale-on-Hudson	Private	1860	Charles H Gray	34	211	96	115	.	84	39,674	196,615	. ..	1,511,574
Barnard Coll , New York	Private	1889	Frank D Fackenthal (e)	126	1,308	0	1 308	...	. .	58,065	5,309,389	65,104	4,302,749
Brooklyn, Polytechnic Inst of, Brooklyn	Private	1854	Harry Stanley Rogers	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)
Brooklyn Coll , Brooklyn	Municipal	1930	Harry D Gideonse	484a	16,868	6,493	10,375	614b	2,254b	13,155	17,927	2,824	7,199,500
Buffalo, Univ. of, Buffalo	Private	1846	Samuel P Capen	590a	6,808	3,912	2 896	122	1,304	26,154	6,944,664	.....	7,117,987

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Canisius Coll , Buffalo	Catholic	1870	Timothy J Coughlin	68	1,867	993	874	141	275	$	$	$	$ 1,315,559
City Coll , Coll of the City of New York, New York	Municipal	1848	Harry Noble Wright	970	27,430	15,208	12,222	1,001	7,764	4,500		534,632	13,337,229
Clarkson Coll of Technology, Potsdam	Private	1896	John A Ross, Jr	59	780	780	0			7,208	1,301,000	180 000	868,350
Colgate Univ , Hamilton	Private	1819	Everett N Case	92	761	761	0		471	39,870	5,784,322	73,364	4,059,848
Columbia Coll , New York	Private	1754	F D Fackenthal (e)	182	1,724	1,724	0			64,217d			
Columbia Univ , New York	Private	1754	F D Fackenthal (e)	2,330	37,319	15,602	21,717	21,243	10,353	314,755	88,793,710d	1,869,201	57,942,896
Cornell Univ , Ithaca	Private	1865	Edmund E. Day	1,215	8,852	5,214	2,539	1,050	1,093	168,886	35,369,308	7,459,938	34,543,423
D'Youville Coll , Buffalo	Catholic	1908	Sister Grace	34	360	0	360		19				
Elmira Coll., Elmira	Private	1855	William S A Pott	47	352	0	352		79	30,833	559,690	45 893	1,628,345
Fordham Univ , New York	Catholic	1841	Robert I Gannon	272	7,165	3,767	3,398	749	1,391	28,800	786,943	82,700	9,250,000
Good Counsel Coll , White Plains	Catholic	1923	Mother M Aloysia	39	284	0	284				50 000		1,500,000
Hamilton Coll , Clinton	Private	1812	David Worcester	31a	234	234	0	0	240	13,470	4,255 732	297,732	2,893,179
Hobart Coll , Geneva	Episcopal	1822	John Milton Potter	38	433	409	0	1	24	9,100	704,737	136,516	1,168,761
Hofstra Coll , Hempstead	Private	1935	John Cranford Adams	44a	991	676	315		90	3,825	735,000	2,500	965,000
Houghton Coll., Houghton	Methodist	1883	S W. Paine	37	530	185	345		90	15,000	298,320	15,607	578,339
Hunter College of the City of New York, N.Y. (Graduate students include only students matriculated for a master's degree)	Municipal	1870	George N Shuster	379	13,067f	606	12,461	77	2,132	9,742	2,469,601	25,522	16,584 214
Keuka Coll., Keuka Park	Baptist	1890	Henry E. Allen	38	369	0	369			28,000	374,972	12,000	1,081,088
Manhattan Coll , New York	Catholic	1853	Brother B Thomas	65	1,000	1,000	0		600	6 900	3,000,000	25,000	2,775,000
Manhattanville Coll. of the Sacred Heart, New York	Catholic	1847	Eleanor M O'Byrne	69	478	0	478		44	65,000	400 900	1,500	3,399,001
Marymount Coll , Tarrytown	Catholic	1907	Mother M Gerard	50	500	0	500				100 000	3,617	2,101,550
Mount Saint Vincent, Coll of, New York	Catholic	1910	Sister Catherine Marie	61	962	0	815x		147	32,362	241,368	190	2,675,408
Nazareth Coll of Rochester, Rochester	Catholic	1924	Mother Rose Miriam	42	380	0	380		195	30,000			1,300,000
New Rochelle, Coll. of, New Rochelle	Catholic	1904	Francis W Walsh	72	850	0	850				105,000	19,200	3,053,821
N Y. Post-Grad Medical School, New York (Affiliated with Columbia U)	State	1882	Willard C Rappleye	174a	1,220	1,170	50			2,550	2,230,497	159,890	252,554
New York Schl of Social Work, New York	Private	1898	Walter W. Pettit	83a	1,752	188	1 564		1,564b		1,284,187	106,137	
New York State Coll for Teachers, Albany	State	1844	John Manville Sayles	98	1,166	222	944	94	819				2,000 000
New York State Coll for Teachers Buffalo	State	1872	Harry W Rockwell	90	1,494	212	1,282		310	2,400			2,100 000
New York Univ , N.Y.	Private	1831	Harry Woodburn Chase	3,866a	47,155	27,349	19,806	8,889b	11,354b	140,881	10,449 802	2,970 621	17,112,427
Niagara Univ , Niagara	Catholic	1856	Joseph M Noonan	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)
Notre Dame Coll , Staten Island, Grymes Hill	Catholic	1931	Sister Saint Egbert	27	290	0	290	0	50	3,000	30,000	5,000	450,000
Queens Coll , Flushing	Municipal	1937	Paul Klapper	198a	3,856	1,467	2,389	0	320	4,033	0	1,076,241	2,252,740
Rensselaer Polytechnic Inst , Troy (Is included in the year of 3 terms of 16 weeks each)	Private	1824	Livingston W. Houston	193a	2 893	2,844	49	67b		41,117	10,500,000	419,457	7,448,140
Russell Sage Coll , Troy	Private	1916	Helen McKinstry	83	784	0	784			25,189	1,054,195	541,761	1,377,560
St Bernardine of Sienna Coll , Loudonville	Catholic	1937	Mark Kennedy	58	1,305	1,095	210		188				750,593
St. Bonaventure Coll., St Bonaventure	Catholic	1858	Thomas Plassman	86	568	517	51		249	37 553		91 928	1,762,620
St John's Univ , Brooklyn	Catholic	1870	William J Mahoney	138	4,790	3,175	1,615	182	3,442	89 800	464,151	8,850	4,525,268
St Joseph's Coll for Women, Brooklyn	Catholic	1916	W Dillon	50	490	0	490			4,400	29,000	67,000	847,000
St. Lawrence Univ , Canton (All data applying to College of Letters and Science)	Private	1856	Eugene K. Bewkes	48	645	294	351			13,502	1,689,132	64,129	3,157,969
St Rose, Coll of, Albany	Catholic	1920	Edmund F Gibbons	42	861	0	861		318	19,550	93,758	13,659	2,232,702

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Sarah Lawrence Coll , Bronxville	Private	1928	Harold Taylor	55a	291	0	291		69	$ 36,810	$ 336 114	$ 34,155	$ 1,979,192
Skidmore Coll , Saratoga Springs	Private	1911	Henry T Moore	94	951	0	951			32,673	874 714	43,960	2,775,753
State T C , Brockport	State	1866	Donald M Tower	61	452	17	296		139				..
State T C , Cortland	State	1869	Donnal V Smith	60	654	250	464		473			100 000	2,200 000
State T C , Fredonia	State	1867	Leslie R Gregory	45	539	103	436		139	3,935			445 000
State T C , Geneso	State	1868	Herbert G. Espy	54	369	22	347		237	2,280			1,025,000
State T C , New Paltz	State	1886	Wm J Haggerty	46	675	90	585		264				985,000
State T C , Oneonta	State	1889	Charles W Hunt	41	553	33	293		227b				655,000
State T. C , Oswego	State	1861	Ralph W Swetman	53	721	399	322		641				1,252,000
State T C , Plattsburgh	State	1889	Charles C Ward	48	775	44	540		191				1,275,000
State T C Potsdam	State	1866	Frederick W Crumb	49	767	74	442		251				1,030,000
Syracuse Univ , Syracuse	Private	1870	William Pearson Tolley	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)
Teachers Coll , Columbia U , New York	Private	1888	William Fletcher Russell	291	16,916	5,604	11,312	14,669	8,500	15,167	7 080 000	225 000	10,700,000
Union Coll , Schnectady	Private	1795	Carter Davidson	116	1 306	1,304	2	0	244	36,700	6,000,000	136,000	4,000,000
United States Military Academy, West Point	Federal	1802	Maj Gen Maxwell D Taylor	403	2,149	2,149	0						75,000,000
Vassar Coll , Poughkeepsie	Private	1861	Sarah Gibson Blanding	202a	1,300	0	1,300	7		142 583	11,891,000	284.481	10,220,000
Wagner Memorial Lutheran Coll , Staten Island	Lutheran	1883	Walter C Langsam	40	410	260	150		345	16,000	400 000	50,000	1,250,000
Wells Coll., Aurora	Private	1868	Richard L Greene	48	325	0	325			22,750	1,553,268	13,747	1,975,909
William Smith Coll , Geneva	Private	1908	John Milton Potter	43	247	0	247						
North Carolina													
Appalachian State T C , Boone	State	1903	B B Dougherty	47	1,542	384	1,158	115	1,086	1,050	20,000	156,332	2,250,000
Barber-Scotia Coll , Concord	Presbyterian	1867	L S Cozart	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)
Bennett Coll., Greensboro [N]	Methodist	1873	David D Jones	33	1,039	0	412	627		16,358	893,494	43 558	1,401,980
Catawba Coll , Salisbury	Evang & Ref.	1851	A R Keppel	40	477f	237	240	0	253	21 365	402 416	26,171	870,279
Davidson Coll , Davidson	Presbyterian	1837	J R Cunningham	45	515	502	13		300	5,200	4 000,000	175,000	2 532,000
Duke Univ , Durham	Private	1838	R L Flowers	525	4,630	3,251	1,379	492	904	30,943	40,581,895	870,160	31,646 832
East Carolina T C Greenville	State	1907	Dennis H Cooke	76	1,306	189	1,117	13	393	18,000			3,100,000
Greensboro Coll , Greensboro	Methodist	1838	Luther L Gobbel	40a	418	0	418			24,600	579,058	103.817	756.271
Guilford Coll , Guilford College	Friends	1837	Clyde A Milner	35	396	220	190		14		682 124	118.300	572,787
Johnson C. Smith Univ , Charlotte [N]	Presbyterian	1867	H L McCrorey	33	974	305	669	24	296	19,000	450,000	63,000	1,135,000
Lenoir Rhyne Coll , Hickory	Evang Luth	1891	P E Monroe	34	614	207	407		387		796 000	300,000	1,000,000
Livingstone Coll., Salisbury [N]	A M E Zion	1882	W J Trent	26	458	102	356			5 000	46,500	65,064	730,479
Meredith Coll , Raleigh	Baptist	1891	Carlyle Campbell	45	665	0	665		119	9,559	568,122	91,862	1,728.500
North Carolina, A & T Coll , Greensboro	State	1891	Ferdinand D Bluford	99	1,867	600	783	51	433	1,500			2,500,000
North Carolina, Univ of, Chapel Hill	State	1789	Robert B House	607	4.430	3.491	939	535	3,724	145,000	4,000 000	238,000	14,000,000
North Carolina Coll for Negroes, Durham [N]	State	1910	James E Shepard	47	1.408	262	611	44	491		0	0	
N. C. St Coll A & E of Univ N C , Raleigh	State	1889	J W Harrelson	225a	3,924	3,133	96	150	2,245		125,000	90,823	8,500,000
Queens Coll , Charlotte	Presbyterian	1857	Hunter B Blakely	48	517	3	514		51	3,900	55.300	310,000	860,000
St Augustine's Coll , Raleigh [N]	Episcopal	1867	Edgar H Goold	21	337	57	280						500,000
Salem Coll , Winston-Salem	Moravian	1772	Howard E Rondthaler	41	366	3	363			5 820	704,999	43,600	1,251,753
Shaw Univ , Raleigh [N]	Baptist	1865	Robert P Daniel	69	922	155	767	5	215	12,000	350,000	56,373	675,000

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State T. C., Elizabeth City, N.C. [N]	State	1891	S D. Williams	24a	562	32	530	....	381	$ 0	$ 0	$ 0	$ 2,000,000
State T. C , Fayetteville	State	1877	J. W. Seabrook	26	636	90	546	0	418	5,930	.....	.....	829,294
Wake Forest Coll., Wake Forest	Baptist	1834	Thurman Kitchin	96	1,722	1,069	243	8	402	80,000	3,000,000	35,500	2,000,000
Western Carolina T. C., Cullowhee	State	1889	H. T. Hunter	31a	421t	157	264	0	292	6,150	0	0	1,669,322
Winston-Salem T. C , Winston-Salem	State	1892	Francis L Atkins	49	678	123	555	0	326	14,000	0	0	1,669,332
Woman's Coll of Univ N. C , Greensboro	State	1892	Walter Clinton Jackson.	281	2,238f	0	2,238	7b	937	15,732	637,792d	5,300	7,695,000
North Dakota													
Jamestown Coll., Jamestown	Presbyterian	1883	Howard J. Bell, Jr.	23a	310	116	194	0	43	9,181	1,200,359	13,674	831,966
North Dakota, Univ of, Grand Forks	State	1883	John C. West	140	2,562	1,519	1,043	78	373	8,000	1,700,000	14,762	3,330,000
North Dakota Agricultural Coll , State College	State	1889	John Harwood Longwell	113	1,613	1,083	530	26	....	9,020	1,571,515	555,180	3,547,150
State Normal & Industrial School, Ellendale	State	1889	J. C. McMillan	24	317	165	152	....	180	1,200	223,000	515,000	520,000
State T. C., Dickinson	State	1917	Charles E Scott	30	552	236	316	....	346	.....	. .	.....	750,000
State T. C., Mayville	State	1889	J W. Headley	21	310	75	235	....	290	.....	513,000	.....	544,713
State T. C , Minot	State	1913	C. C Swain	57a	433t	147	286	....	470	0	0	0	1,000,000
State T. C., Valley City	State	1889	Eugene H. Kleinpell	50	627	119	508	0	409	2,500	870,000	.....	1,275,000
Ohio													
Akron, Univ. of, Akron	Municipal	1870	Hezzleton E. Simmons	159	4,828	2,850	1,978	66	470	3,000	134,451	759	1,900,000
Antioch Coll., Yellow Springs	Private	1853	Algo D. Henderson	90	820	300	520	2	....	4,000	2,235,000	681,165	1,826,667
Ashland Coll , Ashland	Brethren	1878	Raymond W. Bixler	42	528	305	223	7	163	712	416,484	28,680	572,436
Baldwin-Wallace Coll., Berea	Methodist	1845	Louis C Wright	73	1,397	829	568	. .	766	22,875	2,337,840	272,618	2,157,909
Bowling Green State Univ., Bowling Green	State	1910	Frank J Prout	110	2,456	817	1,639	17	379	25,000	. . .	.....	4,200,000
Capital Univ., Columbus	Lutheran	1850	Harold L Yochum	68	805	367	438	..	225	3,775	637,912	108,150	1,231,500
Case School of Applied Science, Cleveland	Private	1880	William Elgin Wickenden.	112	2,268	2,207	61	141	452	. ...	5,923,429	160,621	3,800,000
Cincinnati, Univ of, Cincinnati	Municipal	1819	Raymond Walters	650	14,533	8,198	6,335	834	2,616	85,626	10,817,500	1,004,506	11,149,983
Dayton, Univ of, Dayton	Private	1850	George J Renneker	156a	1,660t	1,106t	510t	44	768	3,000	....	61,000	2,100,000
Denison Univ., Granville	Baptist	1831	Kenneth I Brown	58	783f	125	658	....	360	30,366	3,468,936	196,393	3,518,403
Fenn Coll , Cleveland	Private	1881	C V Thomas	226a	5,130	4,001	1,129	....	.	5,659	809,060	57,359	1,427,316
Findlay Coll., Findlay	Church of God.	1882	Carroll A Morey (e)	15	225f	112	113	....	106	3,021	492,318	44,104	530,358
Heidelberg Coll , Tiffin	Evang & Ref .	1850	Nevin C Harner	32	428	171	257	0	101	3,094	1,031,171	96,271	893,776
Hiram Coll., Hiram	Private	1850	Paul H Fall	31a	531	313	218	....	258	32,627	1,120 866	30,316	999,273
John Carroll Univ , Cleveland	Catholic	1886	F E Welfle	82b	1,926	1,840	86	5	800	0	50,000	...	2,500,000
Kent State Univ , Kent	State	1910	George A Bowman	128	2,487f	1,393	1,057	37	2,352	... .	.....	1,272,000	4,655,000
Kenyon Coll , Gambier	Episcopal	1824	Gordon Keith Chalmers	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)
Lake Erie Coll , Painesville	Private	1856	Helen Dalton Bragdon	27	150	0	150	2	.	6,690	815,085	18,996	1,318,087
Marietta Coll , Marietta	Private	1835	William A Shimer	48	591	388	203	12	46	4,187	1,667,515	59,509	1,256,513
Mary Manse Coll , Toledo	Catholic	1922	Sister Vincent de Paul	47	184	0	184	0	350	0		. .	300,000
Miami Univ., Oxford	State	1809	Ernest H Hahne	297	3,741	1,907	1,834	35	2,885	.....	110,000	36,938	6,829,659
Mt. St Joseph-on-the-Ohio, Coll., Mt St. Joseph.	Private	1920	Mother Mary Zoe	45	332t	0	332	..	245	.	. ..	. . .	3,000,000
Mount Union Coll , Alliance	Methodist	1846	Charles Burgess Ketcham.	42	817	355	462	. ..	235	21,300	1,847,000	69,730	75,632
Muskingum Coll., New Concord	Presbyterian	1837	Robert N Montgomery	78	933	254	445	.	319	13,764	929,376	85,580	1,877,381
Notre Dame Coll., South Euclid	Catholic	1922	Mother Mary Vera	31	220	0	220	.	.	. .	. ...	.....	.....
Oberlin Coll , Oberlin	Private	1833	William E Stevenson	202	2,250	1 165	1,085	107	619	97,092	23,419,103	340,985	6,486,909

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Ohio State Univ., Columbus	State	1873	Howard L Bevis	1,431	22,169	13,475	8,694	2,245	4,732	$18,000	$ 2,162,108	$ 835,305	$30 080,940
Ohio Univ , Athens	State	1804	John C Baker	185	3,482	1,590	1,892	146	584	25,000	98.000		5,783,749
Ohio Wesleyan Univ , Delaware	Methodist	1842	Herbert J Burgstahler	103	1,587	550	1,037	22	368	33,772	4,266,480	307,161	3,053,150
Otterbein Coll , Westerville	Un Brethren	1847	J Gordon Howard	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)
St. Mary of the Springs Coll , Columbus	Catholic	1911	Sister M Anacletus	41	517	0	261		256	.....	..	26,820	1,449,349
Sisters Coll. of Cleveland, Cleveland	Catholic	1928	Edward F Hoban.	19	165f	0	165	69	423	...	90,000	20.000	800,000
Toledo, Univ of, Toledo	Municipal	1872	Philip C Nash	145	3,602	2,493	1,109	63	3,302	75,000	0	25.863	4,500,000
Ursuline Coll., Cleveland	Catholic	1871	Mother Marie Sands	31	240	0	240	0	0				
Western Coll , Oxford	Private	1853	Philip E Henderson	46a	382	0	382	0	0	8 000	847,269	3,180	1,590,406
Western Reserve Univ , Cleveland	Private	1826	Winfred G Leutner	817	14,451	6,535	7,916	1,273	3,355	92,674	16,885,000	434,973	11,103,000
Wilberforce Univ , Wilberforce	State	1856	Charles H Wesley	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)
Wilmington Coll , Wilmington	Friends	1870	Sheppard Arthur Watson	24	397	126	271		154	6,044	335,000	23,000	460,000
Wittenberg Coll , Springfield	Lutheran	1845	Rees Edgar Tulloss	52	1,097	545	552	48	191	18,848	2,401,183	105 951	2,526,822
Wooster, Coll of, Wooster	Presbyterian	1866	Howard Foster Lowry	75	1,312	306	632		374	31,000	3,550,000	74,000	2,621,000
Xavier Univ , Cincinnati.	Catholic	1831	Celestin J Steiner	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)
Youngstown Coll., Youngstown	Private	1908	Howard W Jones	104a	2,122	1,392	730						694,513
Oklahoma													
Central State Coll., Edmond	State	1891	R. R Robinson	60	610	159	451	18	845	8,500	0	167,607	1,359,961
East Central State Coll . Ada	State	1909	A Linscheid	76	1 450	710	770	...	775	17,000	.....		1,352,000
Northeastern State Coll , Tahlequah	State	1909	John S Vaughan	48	1,166	460	706		745	9,600			895,970
Northwestern State Coll , Alva.	State	1897	Sabin C Percefull.	38	358	161	197		311		.....	.....	1,091,543
Oklahoma, Univ of, Norman.	State	1890	George L Cross	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)
Oklahoma A & M Coll , Stillwater	State	1891	Henry Garland Bennett	363	6,580	4,215	2,365	508	1,056	26,933	4,162,891	24,068,000	9,065,967
Oklahoma Coll for Women, Chickasha.	State	1908	C Dan Procter	66	775	0	775	..	156	7.800	.....	221,000	1,798,000
Phillips Univ , Enid...	Disc of Christ	1907	Eugene S Briggs	46	1 052	442	610	85	288	28,000	766,500	84,000	700,000
Southeastern State Coll , Durant	State	1909	T T Montgomery	52	1,247	221	315	19	692	9,740	0	0	586,500
Southwestern Inst of Technology, Weatherford	State	1901	R H Burton	55	655	364	291		583	5,000			735,260
Tulsa, Univ of, Tulsa.	Presbyterian	1894	C I Pontius	125	2,910	1,936	974	58	368	30,017	1,300,789	513,766	1,620,058
Oregon													
Eastern Oregon Coll. of Ed , La Grande	State	1929	Robert J Maaske	28	585	202	383	...	120	5,158	104,652	225	573,331
Lewis and Clark Coll , Portland	Presbyterian	1867	Morgan S Odell	42	495	264	235	0	265		300 000		.....
Linfield Coll , McMinnville	Baptist	1857	Harry L Dillin	36	413	152	261	3	114	7,700	1,100,000	50,000	1,000,000
Marylhurst Coll , Marylhurst	Catholic	1930	Sister M Rose Augusta	39	241	0	241		134		50,000		380,000
Mount Angel Coll , St Benedict	Catholic	1887	Thomas Meier	21	65	65	0		25		80,000	.....	400,000
Mount Angel Normal School, Mt Angel	Catholic	1887	Mother M Ursula	13a	60	0	60	...	40				225,000
Oregon, Univ. of, Eugene and Portland	State	1872	Harry K Newburn	232a	6,152	3,198	2,954	483	616b	27,000	1,199,743	136,900	6,451,322
Oregon Coll of Ed., Monmouth	State	1856	Charles A Howard	34a	730	118	612		598	13,577			941,070
Oregon State Coll , Corvallis	State	1868	August Leroy Strand	331	5,924	3,855	2,069	249	557	16,640	267,344	162,665	9,886,906
Pacific Univ., Forest Grove	Congregational	1849	W. C Giersbach	32	394	229	165	5	58	1,152	339,323	30,066	519,232
Portland, Univ. of, Portland	Catholic	1901	Theo J Mehling	64	900	727	173	20	420	13,000		125.000	1,629,000
Reed Coll., Portland	Private	1911	Peter H Odegard	36	622f	337	285	96	233	6,421	1,619,317	15,864	1,229,214
Southern Oregon Coll. of Ed , Ashland	State	1926	Elmo N Stevenson	35	400	265	135		(b)				600,000

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Williamette Univ , Salem	Methodist	1842	G. Herbert Smith	44	1,007	482	525	16	198	$ 6,000	$ 1,968,000	$ 218,000	$ 990,500
Pennsylvania													
Albright Coll , Reading	Evangelical	1856	Harry V Masters	46	396	213	183	0	96	13,344	913,648	16,487	1,501,841
Allegheny Coll , Meadville	Private	1815	John Richie Schultz	54a	952	450	502	4	356	43,750	2,000,000	340.000	2,522,153
Bryn Mawr Coll , Bryn Mawr	Independent	1880	Katharine E McBride	94	633	3	630	92b	0	84 848	7,476,470	83,049	5,211,763
Bucknell Univ., Lewisburg	Baptist	1846	Herbert L Spencer	107	2,082	890	680	41	471	55,364	1,482,149	372,766	3,546,526
Carnegie Inst of Technology, Pittsburgh	Private	1900	Robert E Doherty		2,328	1,496	832	150	812	72,086	27,316,843	9,497,921	8,323,841
Cedar Crest Coll , Allentown	Evang & Ref	1867	Dale H Moore	36a	329	0	329	0	0	21,400	126,258	26,499	1,133,014
Chestnut Hill Coll , Philadelphia	Catholic	1871	Sister Maria Kostka	48	622	0	622		220	41,000	200,000	4,280	1,825,000
Cheyney Train School for Teachers, Cheyney	State	1837	L P Hill	22	212	46	166		.	8 723	0	0	1,650,000
Coll , Misericordia, Dallas	Catholic	1923	Sister Mary Annunciata	47	292	0	292	0	283	20 000	1,100,000	12,234	1,212,000
Dickinson Coll , Carlisle	Methodist	1773	William W Edel	38	555	355	200		87	20,000	2,000,000	30,000	2,000,000
Drexal Inst of Technology, Philadelphia	Private	1891	James Creese	171a	2,915	1,977	938	115b	1,587b	23,930	2,930,329	40,517	4,505,060
Duquesne Univ , Pittsburgh	Catholic	1878	Francis P Smith	175	3,301	1,358	1,943	196	1,085	10,000	2,000,000	26,628	1,894,829
Franklin and Marshall Coll , Lancaster	Evang & Ref	1787	Theodore A Distler	43	1,090	1,090	0			22,860	1,587,491	24,819	2,385,011
Geneva Coll , Beaver Falls	Ref Presb	1848	M M Pearce	30	251	58	193		223	5,377	666,453	56,000	1,098,780
Gettysburg Coll., Gettysburg	Lutheran	1832	Henry W A. Hanson	43	738	473	265	0	462	25,000	500,000	57,690	2,000,000
Grove City Coll., Grove City	Presbyterian	1876	Weir C Ketler	43	857	351	506		138		841,397		3,218,094
Haverford Coll , Haverford	Friends	1833	Archibald MacIntosh (e)	41	251	248	3	2	0	14,157	4,500,000	7,201	4,405,000
Immaculata Coll , Immaculata	Catholic	1920	Vincent L Burns	41	493	0	320		173	21,000	3,250,532	7,238	4,267,584
Juniata Coll , Huntingdon	Brethren	1876	Calvert N Ellis	38a	359	160	199		110	24,383	750,000	119,600	1,112,400
Lafayette Coll , Easton	Presbyterian	1826	Ralph Cooper Hutchison	75	962	940	22	32	600	17,623	4,477,573	286,582	4,759,561
La Salle Coll., Philadelphia	Catholic	1863	Brother G Paul	40	500	500	0		450	14,000	800,000		2,047,787
Lebanon Valley Coll , Annville	Un Brethren	1866	Clyde Alvin Lynch	27	730	288	442	0	150	6,143	1,008 615	12,391	741,609
Lehigh Univ., Bethlehem	Private	1866	Martin D Whitaker	197	2,142	1,838	0	279	25	41,506	7,665 000	96,505	7,192,211
Lincoln Univ , Lincoln University [N]	Presbyterian	1854	Horace Mann Bond	23	447	447	0	12	110	13,368	1,019,005	148,100	818,235
Marywood Coll , Scranton	Catholic	1915	Sister M Sylvia	58	531	0	531		478	17,000	75,000		3,030,000
Mercyhurst Coll , Erie	Catholic	1926	Mother M Borgia	32	246	0	246		95		1,500 000		1,603,500
Moravian Coll & Theol Sem , Bethlehem	Moravian	1807	R S Haupert	22a	160	160	0	0	192	6,512	571,986	27,602	553,133
Mount Mercy Coll , Pittsburgh	Catholic	1929	Mother M I Dougherty	35	583		583		425	10,000	500 000		1,000,000
Muhlenberg Coll , Allentown	Lutheran	1848	Levering Tyson	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)
Pennsylvania, Univ of, Philadelphia	Private	1740	George W McClelland	1,862	18,633	14,011	4,622	(b)	(b)	38,816	28,000,000	1,606,952	36,093,922
Pennsylvania Coll for Women, Pittsburgh	Private	1869	Paul R Anderson	41	373	0	373			14 692	591,879	15,182	1,806,470
Pennsylvania State Coll , State College	State	1855	Ralph Dorn Hetzel	887	6,957f	5,086	1,871	630	4,123	9,122	517,000	459,585	24,428,929
Pittsburgh, Univ of, Pittsburgh	Semi-State	1787	Rufus H Fitzgerald		15,994	8,727	7,267	3,113	3,583	352,157	3,552,429	433,759	20,583,856
Rosemont Coll , Rosemont	Catholic	1922	Mother Mary Boniface	44	312	0	312				500,000		1,200,000
St. Francis Coll , Loretto	Catholic	1847	Adrian J Veigle	35	450	440	10		170			39,625	1,112,500
St. Joseph's Coll , Philadelphia	Catholic	1851	John J Long	30a	427	427	0		285b	47,422		19,687	1,859,000
St. Vincent Coll , Latrobe	Catholic	1846	Alfred Koch	45	528	528	0	80	348				
Scranton, Univ of, Scranton	Catholic	1888	William Coleman Nevils	59	1,252	1,252	0		53	39,000	1,500,000		2,000,000
Seton Hill Coll , Greensburg	Catholic	1882	James A W Reeves	59	815	0	815		289	12,000	500 000	17,000	2,900,000
State T. C., Bloomsburg	State	1839	Harvey A Andruss	46	796	(u)	(u)		141				2,110,461

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State T C., California	State	1852	Robert M Steele	50	750	600	150		415	$	$	$	$1,700,000
State T. C , Clarion	State	1867	Paul G Chandler	21	245	110	135		185	.	.	124,000	1,308,430
State T. C , East Stroudsburg	State	1893	J F Noonan	52a	664	276	388	0	(b)	0	0	0	3,000,000
State T. C , Edinboro	State	1857	L H Van Houten	26	826	126	700		212			. .	1,500,000
State T. C., Indiana	State	1875	J M Uhler	76	988f	233	755	..	419			.	3 973,444
State T. C , Kutztown	State	1866	Quincy A W Rohrbach	34	383	116	267	. . .	602		. . .	177,063	2,208,860
State T C., Lock Haven	State	1878	Richard T Parsons	29	653	243	410	.	260	.	..		1,860,470
State T C , Mansfield	State	1859	James G Morgan	43	298	99	199	.	259				2,300 000
State T C., Millersville	State	1855	D L Biemesderfer	45	380	187	193	.	183		0	0	1,900,000
State T. C , Shippensburg	State	1871	Albert Lindsay Rowland	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)
State T. C., Slippery Rock	State	1889	Dale W Houk	46	430	181	249		163	3,904	.		2,223,687
State T. C , West Chester	State	1871	Charles S Swope	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)
Susquehanna Univ , Selinsgrove	Un Lutheran	1858	G Morris Smith	27	284	102	182	.	57	14,000	471,297	25 000	876,042
Swarthmore Coll , Swarthmore	Friends	1864	John W Nason	102	880	520	360	0	0	40,000	8,364.310	49,058	4,246.632
Temple Univ , Philadelphia	Private	1884	Robert L Johnson	663	12,977	6,965	6,012	1,115	4,179	161,567	2,021,340	1,210,820	7,602,250
Thiel Coll , Greenville	Lutheran	1866	Wm F Zimmerman	23	376	212	164	. .	74	8,000	170,000	52,000	750,000
Ursinus Coll , Collegeville	Evang. & Ref	1869	N E McClure	51	702	277	425		154	30,000	740,000	48,000	1,500,000
Villa Maria Coll , Erie	Catholic	1882	Sister Doloretta	33	322	0	322	.	154	5,000	400,000	.	1,134.561
Villanova Coll , Villanova	Catholic	1842	F X N McGuire	174	2,172	1,074	1,098	188	1,174		3,154,505		5,500,000
Washington and Jefferson Coll , Washington	Presbyterian	1780	James H Case, Jr	35	525	525	0	...	500	12,030	1,808,386	60,441	2,108,443
Westminster Coll , New Wilmington	United Presb	1852	H Lloyd Cleland	69a	864	340	524	.	397	20,605	850,500		1,680,000
Wilson Coll , Chambersburg	Presbyterian	1869	Paul Swain Havens	57	430	0	430	. .		22,787	986,238	3,925	1,231,928
Puerto Rico													
Polytech. Inst. of Puerto Rico, San German	Presbyterian	1912	Jarvis S Morris	25	340	163	177	.	602	9,325	400,850	53,140	800,000
Rhode Island													
Brown Univ , Providence (Pembroke College, undergraduate college for women)	Private	1764	Henry Merritt Wriston	290	2,377	1,417	710	250	0	67,710	12,047,500	167,327	7,962,608
Pembroke Coll , Providence (Coordinate of institution of Brown University)	Private	1891	Henry Merritt Wriston	270	710	0	710	0	0	43,000	581,951	40,473	.....
Providence Coll , Providence	Catholic	1919	Frederick C Foley	85	850	850	0	. .	580	14,000	90,000	350,000	2,500,000
Rhode Island Coll of Ed , Providence	State	1854	Lucius A Whipple	58	320	16	304	.	284	.	.	..	1,672,743
Rhode Island State Coll , Kingston	State	1892	Carl R Woodward	164	1,280	736	544	(u)	(u)	(u)	(u)	(u)	(u)
South Carolina													
Benedict Coll , Columbia [N.]	Baptist	1870	J A Bacoats	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)
Charleston, Coll of, Charleston	Municipal	1770	George Daniel Grice	21	293	131	162	0	249	3,414	532,500		1,480,800
The Citadel, The Military Coll of S C , Charleston	State	1842	Gen C P Summerall	48	672	672	0			7 544	150,000		5,000,000
Clemson Agric Coll Clemson	State	1889	R F Poole	224	1,863	1,863	0	0	1,631	2,000	281,000	0	7,255,933
Coker Coll , Hartsville	Private	1908	Donald C Agnew	33	492	6	486		132	4 000	700,000	14,000	625,000
Columbia Coll , Columbia	Methodist	1854	J C Guilds	32	445	31	415	0	0	5,197	537,653	26,000	529,380
Converse Coll , Spartanburg	Private	1889	E M Gwathmey	45a	534	10	417	2	105	14,445	643 258	19,442	1,195,310
Erskine Coll , Due West	Presbyterian	1839	Robert Calvin Grier	23	351	107	244	6	117	7,700	390,000	56,000	646,000

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Furman Univ , Greenville	Baptist	1826	John Laney Plyler	55	1,940	653	1,287	65	637	$ 12.000	$ 2,800,000	$217,789	$ 2,300,000
Limestone Coll , Gaffney	Private	1845	Robert Colley Granberry	37	389	0	389		128	8,230	692.810	71,208	738,918
Newberry Coll., Newberry	Lutheran	1856	James C Kinard	22	267	140	127		146	1,500	220,000	50,000	450,000
South Carolina, Univ of, Columbia	State	1801	Admiral N. M. Smith	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)
State Colored Normal, I , A & M Coll of S C , Orangeburg [N]	State	1896	M F Whittaker	163	1,297	489	808	0	1,175	12,000	195,000	23,500	1,600,000
Vorhees Normal & Industrial School, Denmark [N]	Episcopal	1897	J E Blanton	21	87	16	71				42 000		250 000
Winthrop Coll , S C Coll for Women, Rock Hill	State	1886	Henry R Sims	113	1,735	0	1,735		714	19,200		425 000	3,825,000
Wofford Coll , Spartanburg	Methodist	1851	Walter Kirkland Greene	27	279	278	0	3	500	9,218	846,217	75,000	744,675
South Dakota													
Augustana Coll , Sioux Falls	Lutheran	1860	Lawrence M Stavig	49a	675	285	390		120b	16,908	471,999	30,000	752,287
Black Hills T. C., Spearfish	State	1883	Russell E Jones	35	282	186	96		(u)	(u)	(u)	80,000	650,000
Dakota Wesleyan Univ , Mitchell	Methodist	1885	Joseph H Edge	23	238	122	166	0	102	4,475	567,531	59,543	570,043
Eastern State Normal School, Madison	State	1889	V A. Lowry	21	364	72	292		269				(u)
Huron Coll , Huron	Presbyterian	1883	George F McDougall	22	236	123	113		156				
Northern State T. C., Aberdeen	State	1902	N E. Steele	58	1,141	374	767	0	745	4,420	215.972		1,125,000
Southern State Normal School, Springfield	State	1897	J Howard Kramer	22	84	38	46	0	330	1,965	134,212		500,000
South Dakota, Univ. of, Vermillion	State.	1882	I D Weeks	85	1,356	777	579	161	348	2,000	407,000		2,500,000
South Dakota School of M. & T., Rapid City	State	1885	Joseph P Connolly	32	399	393	6		35		250,000		1,250,000
South Dakota State Coll. of A. & M Arts, Brookings	State	1881	Harold M. Crothers	110	492	166	326	6	160		634,451		3,369,224
Yankton Coll., Yankton	Private	1881	J. Clark Graham	30	423	204	219		154	3,357	701,448	34,027	894,941
Tennessee													
Carson-Newman Coll , Jefferson City	Baptist	1851	James T Warren	31a	375f	120	255	0	158	6,806	664,968	52,224	553,505
Chattanooga, Univ of, Chattanooga	Private	1886	David A Lockmiller	66	1,723	795	928	2	279	10,000	839,000	500,000	1,500,000
East Tenn. State Coll , Johnson City	State	1911	Charles C Sherrod	60	1,020	381	639		606				1,500,000
Fisk Univ , Nashville [N.]	Private	1866	Thomas E Jones	55	998	288	710	112b	244b	12,624	3,988,799	116,763	1,719,000
George Peabody Coll for Teachers, Nashville	Private	1785	Dr H H Hill	121	2,680	708	1,972	1,076	1,595	29,075	5,228,966	51,931	4,496,343
Knoxville Coll., Knoxville [N.]	Presbyterian	1875	William Lloyd Imes	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)
Lane Coll., Jackson [N].	Col M E	1882	Dean S Yarbrough	22	664	180	484		200		30,000		500
Le Moyne Coll , Memphis [N.]	Congregational	1871	Hollis F Price	30	479	101	378		165				350,000
Lincoln Memorial Univ., Harrogate	Private	1897	S W McClelland	24	282	99	183		98	20,513	719,540	58,344	1,176,107
Maryville Coll., Maryville	Presbyterian	1819	Ralph Waldo Lloyd	43	536	127	409			43,456	1,937,312	51,116	891,921
Memphis State Coll., Memphis	State	1912	Jennings B Sanders	45	1,032	505	527		355			140,000	1,230,085
Middle Tennessee State Coll , Murfreesboro	State	1909	Q M Smith	44	451	59	392		176			130,000	1,275,000
Scarritt Coll for Christian Workers, Nashville	Methodist	1924	Hugh C Stuntz	18	210	11	199	118	51	28,850	502,315	95,192	1,062,450
South, Univ of the, Sewanee	Episcopal	1857	Alexander Guerry	40	445	489	3	47	218	9,500	2,157,000	90,700	1,455,000
Southwestern, Memphis	Presbyterian	1848	Chas E Diehl	41	870	403	467		158	12,183	2,100,000	22,800	1,702,782
Tennessee, Univ of, Knoxville	State	1794	C E Brehm	283	6,476	3,981	2,495	487	1,259	18,812	613,142	83,080	13,249,092
Tennessee A. & I State Coll , Nashville [N]	State	1912	W S Davis	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)
Tennessee Polytechnic Inst , Cookeville	State	1915	Everett Derryberry	44	832	503	329	0	187	9,235		196 000	1,750,000
Tusculum Coll , Greeneville	Presbyterian	1794	George K Davies	24	266	99	167			3,800	1,429,000	7,600	628,500
Vanderbilt University, Nashville	Private	1872	Bennett H Branscomb	490	2,539	1,756	783	137	782	137,026	30,469,405	127,882	7,902,534

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Texas													
Baylor Univ , Waco	Baptist	1845	Pat M Neff	113	3,097	1,662	1,435	87	1,815	$107,176	$ 2,668 574	$ 94,711	$ 4,320,260
Bishop Coll , Marshall	Baptist	1881	Joseph J Rhoads	24	994	183	350		461	5,659	14,218	10,156	217,822
East Texas State T C , Commerce	State	1889	Sam H Whitley	107	1,205	627	578	135	1,557	15,500	.	30,385	1,830,729
Hardin-Simmons Univ , Abilene	Baptist	1891	R N Richardson	49	1,280	610	670		314	35,000	1,250,000	30 000	1,176,000
Incarnate Word Coll , San Antonio	Catholic	1900	Sister M Columkille	63	767	0	767	.	568	.	2,079,638	24,861	1,918,086
John Tarleton Agricultural Coll . Tarleton Station	State	1899	E J Howell	60	886	586	300		340		408,564	.	1,598,494
Mary Hardin-Baylor Coll , Belton	Baptist	1845	Gordon G Singleton	43	681	0	681		133	24,750	1,200,000	31,000	1,300,000
Mines & Metallurgy, Coll of, El Paso	State	1914	D M Wiggins	60	2,319	714	615	129	990	0	600,000	400	1,165,000
North Texas Agricultural Coll , Arlington	State	1917	E H Hereford	72	1,745	1 293	425	.	388		.....	. .	1,382,907
North Texas State T C , Denton	State	1890	W J McConnell	195	2,936f	1,201	1,735	214b	2,793	2,650	0	0	5,654,039
Our Lady of the Lake Coll , San Antonio	Catholic	1911	John La Salle McMahon	76	1,100	14	1,086	24	647	10 607	2,346,827	25 000	2,197,680
Prairie View University, Prairie View	State	1876	W R Banks	122	2,624	834	1 790	51	784	14,950	900,000	25,000	2,500,000
Rice Inst , Houston	Private	1912	William V Houston	70	1,081	785	284	12	.	...	13,700,000	.	4,900,000
Sam Houston State T C , Huntsville	State	1879	Harmon Lowman	85	2,781	741	673	126	1,367	230	... .	... .	3,782,649
Samuel Houston Coll , Austin	Methodist	1876	Karl E Downs	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)
Southern Methodist Univ , Dallas	Methodist	1911	Umphrey Lee	205	5,803	3,980	1,823	95	885	90,731	4,455 340	1,174,547	5,049 533
Southwestern Univ , Georgetown	Methodist	1840	J N R Score	77	1,557	919	638	9	512	91,203	1,113,257	223,760	2,580,804
Southwest Texas State T C , San Marcos	State	1899	John Garland Flowers.	60	957	401	556	57	1,340	. .		.....	1,695,000
Stephen F Austin State T C , Nacogdoches	State	1923	Paul L Boynton	43	1,772	895	877	58	845	0	207,436	...	1,243,737
Sul Ross State T C , Alpine	State	1920	Richard Melvin Hawkins	31	390	176	214	84	530		. .	500	1,068,658
Texas, A and M Coll of, College Station	State	1876	Gibb Gilchrist	342	5,447	5,447	0	355	6,275	13,416	322,742	43,022	16,078,000
Texas, Univ of, Austin	State	1883	T S Painter	762a	15,118	9 658	5,460	1,012	9,187	48 533	74 531,901	130,428	26,654,269
Texas Christian Univ , Fort Worth	Disc of Christ	1873	M E Sadler	183	3,703	1,973	1,730	356	1,778	22,583	3,569,932	47,487	3,528,894
Texas Coll , Tyler	Col M E	1894	Dominion R Glass	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)
Texas Coll of Arts and Industries, Kingsville	State	1923	Edward Newlon Jones	55	1,796	1,005	791	105	967	12,500			442,610
Texas State Coll for Women, Denton	State	1901	L H Hubbard	188	3 869	0	2,737	222	1,063	68 750	661,718	52,000	6,000,000
Texas Technological Coll , Lubbock	State	1925	William M Whyburn	151	3,744	2 086	1,658	47	2,670	6,523	887,904	149,675	4,689,348
Tillotson Coll , Austin	Congregational	1877	William H Jones	25a	531	41	490	.	273	3,738	34,350	16,324	600,000
Trinity Univ , San Antonio	Presbyterian	1869	Monroe Green Everett	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)
West Texas State T C , Canyon	State	1910	J A Hill	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)
Wiley Coll , Marshall	Methodist	1873	E C McLeod	49	792	245	447	0	229	13,750	600,000	52,208	600,000
Utah													
Brigham Young Univ , Provo	L D S	1875	Howard S McDonald	150	3,446	1,642	1,803	229	1,280	9,350	244,148	434,452	2,538,559
Saint Mary-of-the-Wasatch, Coll of, Salt Lake City	Catholic	1926	Sister Mary Benedictus	16	101	0	101	.	71		..		750,000
Utah, Univ of, Salt Lake City	State	1850	Albert Ray Olpin	280	7,003	4,099	2,904	219	2,017	12,602	778,486	114,724	5,700,000
Utah State Agricultural Coll , Logan	State	1888	Franklin Stewart Harris	147	2,818f	1,749	1,069	153b	380	.	0	62,513	3,557,000
Westminster Coll., Salt Lake City	Presbyterian	1895	Robert D Steele	24	135	52	83	.	..	1 200	150,000	40,000	600,000
Vermont													
Bennington Coll , Bennington	Private	1932	Lewis Webster Jones	50a	316	6	310	. .		48,641	150,245	61,350	1,420,000
Middlebury Coll , Middlebury	Private	1800	Samuel S Stratton	51	1,489	152	552	8	788	20,500	4,769,000	164,000	2,355,000
Norwich Univ , Northfield	Private	1819	Homer L Dodge	42	516	516	0	. . .	230	6,592	1,055 177	79,195	1,100,623

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St Michael's Coll , Winooski Park	Catholic	1904	Daniel P Lyons	40	450	350	100	65	140	$ (u)	$ (u)	$ (u)	$ (u)
Vermont, Univ. of, & State Agric Coll , Burlington	State	1791	John S Millis	209a	1,425	744	681	33b	445	110,955	2,500,000	24,056	3,546,212
Virginia													
Bridgewater Coll., Bridgewater	Brethren	1880	J I Baugher	24	316	140	176		76		528,471	16,945	530,653
Emory and Henry Coll , Emory	Methodist	1836	Foye G Gibson	19	380	289	97		206	12 000	561,872	34,600	575,000
Hampton Inst., Hampton [N]	Private	1868	Ralph P. Bridgman	105	2,022	0	0	257	806	78,422	9,993,438	132,714	4,419,536
Hampden-Sidney Coll., Hampden-Sidney	Presbyterian	1776	Edgar G Gammon	24a	212	212	0	0	0				
Hollins Coll., Hollins College	Private	1842	Bessie C. Randolph	45	343	0	343			4,300	480,380	14,111	1,476,901
Lynchburg Coll , Lynchburg	Disc of Christ	1903	Riley B Montgomery	34	388	200	168	0	270	17,668	322 000	35,572	456,000
Madison Coll., Harrisonburg	State	1908	Samuel P. Duke	92	1,665	45	1,620		573	22,150	729,665	361	2,052,000
Mary Baldwin Coll , Staunton	Presbyterian	1842	Martha S Grafton	34	318	0	318			7,885	589,518	5,235	927,358
Mary Washington Coll of the Univ of Virginia	State	1908	Morgan L Combs	106	1,981	0	1,981		465	15,000			7,000,000
Radford Coll., Women's Division Va Polytech Inst , Radford	State	1910	David W Peters	54	1,078	0	1,078		602	8,122			1,483,625
Randolph-Macon Coll , Ashland	Methodist	1830	J Earl Moreland	23	205	188	17			6,835	1,022,371	36,628	589,819
Randolph-Macon Woman's Coll , Lynchburg	Methodist	1893	Theodore H Jack	75	695	0	695			45,000	1,400,000		2,200,000
Richmond, Univ. of, Richmond	Baptist	1832	G M Modlin	96a	2,287	1,509	483	29	266	31,550	3,042 000	398,000	2,835,000
Roanoke Coll , Salem	Lutheran	1842	Chas J Smith	24	716	195	196		325	2,993	675,000	30,067	802,126
State T. C , Farmville	State	1884	Dabney S Lancaster	53	1,234	21	1,213		368	12,185	135,662	1,904	1,712,000
Sweet Briar Coll , Sweet Briar	Private	1901	Martha B Lucas	55	445	0	445	0	0	24,690	915,977	47,585	1,700,000
Virginia, Univ. of, Charlottesville	State	1819	John Lloyd Newcomb	217	2,734	2,611	123	217	220	114,212	12,446,728	443,469	10,838,242
Virginia Military Inst , Lexington	State	1839	Richard J Marshall	62	789	789	0			18,158	359,918		3,137,825
Virginia Polytechnic Inst , Blacksburg	State	1872	John R Hutcheson	245	2,775	2,619	156	169b	1,037		344,312		9,075,264
Virginia State Coll , Petersburg [N]	State	1882	L H Foster	129	1,204	355	804	45	907	9,261	173,000	20 006	3,246,145
Virginia Union Univ , Richmond [N]	Baptist	1865	John Malcus Ellison	38	1,163	223	561	18	361	13,365	786,475	83,982	1,160,862
Washington and Lee Univ , Lexington	Private	1749	Francis P Gaines	63	703	703	0		474	28,000	3,528,749	213,000	2,906,617
Westhampton Coll , Richmond (Coordinate institution of Univ of Richmond)	Baptist	1914	Maude H Woodgin	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)
William and Mary, Coll of, Williamsburg	State	1693	John Edwin Pomfret	91	1,374f	548	810	16	410	38,892	1,707,079	32,416	7,500,000
Washington													
Central Washington Coll. of Ed , Ellensburg	State	1891	Robert E McConnell	60	583	207	376		522	1,713			1,705,422
Eastern Washington Coll. of Ed , Cheney	State	1890	Walter W Isle	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)	(u)
Gonzaga Univ , Spokane	Catholic	1887	Francis E Corkery	99	1,412	1,146	266	48b	411b				1,630,480
Holy Names Coll., Spokane	Catholic	1907	Sister M Elizabeth Clare	23	160	0	160		143				220,000
Pacific Lutheran Coll., Parkland	Lutheran	1894	S C Eastvold	32a	508	231	278		96		72,000	49,050	1,124,000
Puget Sound, Coll of, Tacoma	Methodist	1888	R Franklin Thompson		1,187	653	534	9	163	8,225	1,300,000	76,707	1,228,000
St. Edward's Seminary, Kenmore	Catholic	1930	John P McCormick		153	153	0						450,000
St. Martin's Coll., Lacey	Catholic	1895	Raphael A Heider	37	155	85	0		70	2,000	40,000	1,500	750,000
Seattle Coll., Seattle	Catholic	1898	Harold O Small	20	929	124	805	10	610	(u)	(u)	(u)	(u)
Seattle Pacific Coll , Seattle	Free Methodist	1891	C Hoyt Watson	35a	486	157	299		166	6,590	100,000	28,000	460,000
Walla Walla Coll , College Place	Adventist	1892	George W Bowers	43	998	441	557		269	(u)	(u)	(u)	(u)
Washington, State Coll. of, Pullman	State	1890	Wilson Compton	194	1,978	483	1,495	126	637		7,233,541	40,602	6,727,776

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Washington, Univ of, Seattle	State	1861	Lee Paul Sieg	595	15,545	9,161	6,384	1,217	3,120	$ 35,102	$3,847,864	$ 130,471	$20,000,000
Western Washington Coll of Ed , Bellingham	State	1893	W W Haggard	63	1,003	500	503	.	539	1,000		317,184	2,500,000
Whitman Coll , Walla Walla	Private	1859	Winslow S Anderson	45	734	368	366	11	.	5,700	1,445,000	133,280	600,300
Whitworth Coll., Spokane	Presbyterian	1890	Frank F Warren	31	623	176	449	15	150	19,000	32,000	81,000	560,000
West Virginia													
Bethany College, Bethany	Private	1840	Wilbur H Cramblet	39	478	202	276		181	27,727	3,021,422	18,531	1,259,791
Concord Coll , Athens	State	1872	Virgil H Stewart	36	1,589	234	0	271	1,084	..		. . . .	1,500,000
Fairmont State College, Fairmont	State	1867	George H Hand	40	1,179	389	790		308	4,500	184,000	.....	1,464,000
Glenville State Coll , Glenville	State	1872	D L Haught	24	375	100	275		535	...	. .	.....	800,000
Marshall Coll., Huntington	State	1837	John Davis Williams	121a	3,170	1,322	1,843	110	891	9,666	375,800	. .	4,300,000
Shepherd Coll., Shepherdstown	State	1871	W H S White	20	435	180	255		240	9.500	. . .	....	400.000
West Liberty State Coll , West Liberty	State	1837	Paul N Elbin	24	509	199	310		262		.	.	800,000
WestVirginia State Coll., Institute [N]	State	1891	John W Davis	53	1 002	307	695	0	534	0	0	0	2,033 294
West Virginia Univ , Morgantown	State	1867	Irvin Stewart	320	4 036	2,561	1,475	519	767		2,574 797	36,660	12 000.000
West Virginia Wesleyan Coll , Buckhannon	Methodist	1890	William J Scarborough	25	455	181	274		148				
Wisconsin													
Alverno College, Milwaukee (c)	Catholic	1890	Mother M Corona	66a	984	0	407		577				..
Beloit Coll , Beloit	Private	1846	Carey Croneis	52	635	278	352	5	.	35 485	2,369 798	77 093	1,427,316
Carroll Coll , Waukesha	Presbyterian	1846	G T Vander Lugt	38	672	286	246		140	3,510	953,719	51,639	1,110,419
Lawrence Coll , Appleton	Private	1847	Nathan M Pusey	60	842	332	490	20			1,520,000	225,000	2,400,000
Marquette Univ , Milwaukee	Catholic	1864	Peter A Brooks	502a	7,204	4,620	2,584	543	367	65 000	2,934,179	248,312	6,476,936
Milwaukee-Downer Coll , Milwaukee	Private	1851	Lucia R Briggs	48a	477	0	477			12 865	2,370 055	22 570	1,723,273
Mount Mary Coll , Milwaukee	Catholic	1915	Edward A Fitzpatrick	126a	1,498f	0	903		854	18,880			2,194,393
Ripon Coll , Ripon	Private	1851	Clark G Kuebler	39	541	296	245			15,838	928,786	23,575	755,640
St. Norbert Coll , West De Pere	Catholic	1898	B H Pennings	55	685	335	350		400		.		
State T C., Eau Claire	State	1916	W R Davies	(u)	392	176	216		432	5 256		0	1.000,000
State T. C , La Crosse	State	1909	Rexford S Mitchell.	55	574f	219f	355f	. .	673	3,253		235,050	1,480,600
State T C , Milwaukee	State	1880	Frank E Baker	89	1,565	369	827	90	1,108	900			1,500,000
State T. C., Oshkosh	State	1871	Forrest R Polk	48	277	38	239	. . .	441	1,147	.	213,145	1,522,980
State T C., Platteville	State	1866	Chester O Newlun	42	1 066	353	713	. . .	586	.		188,931	1,029,994
State T C., River Falls	State	1874	J H Ames	41	375	216	159	..	252	3 000	.		907,850
State T. C , Stevens Point	State	1894	Wm C Hansen	50	930	403	527	..	490	1,920			1,026,920
State T C , Whitewater	State	1866	C M Yoder	49	848	273	573		408	..			975,000
Stout Inst , Menomonie	State	1893	Verne C Fryklund	58	1,196	802	394	173	638	500		...	1.300 000
Superior State T C , Superior	State	1896	Jim Dan Hill	56	878f	608	270	0	374	3 000			1 000,000
Wisconsin, Univ of, Madison	State	1848	Edwin Broun Fred	650	13,699f	8,002	5,697	1,557	4,344	381 983	4,991,031	1,343,445	28,316,632
Wyoming													
Wyoming, Univ. of, Laramie	State	1887	George Duke Humphrey	157	1,873f	1,189	684	108	657	127,652	4,278,954	212,085	5,222,542

a Numbers followed by the letter (a) include part-time faculty members All others indicate full-time faculty only.

b Included in total.

c Word "Teachers" formerly included in name of institution

d Includes appropriations

e Acting.

f Does not include summer school enrollment

t Does not include graduate and summer students

u No statistics were supplied by this institution for 1945–46.

x Students of Nursing Education

TABLE 3—ESTIMATED ENROLLMENT OF STUDENTS ENTERING COLLEGE FIRST TIME AND OF STUDENTS IN COLLEGE BEFORE, BY TYPE OF INSTITUTION, BY SEX, FALL 1946

Type of Institution	All Students Entering College First Time	All Students In College Before	Men Entering College First Time	Men In College Before	Women Entering College First Time	Women In College Before
	Total		Total		Total	
All institutions	2,078,095	696,419	1,381,676	1,417,595	499,532	918,063	660,500	196,887	463,613
1. Universities and large institutions of complex organization	1,031,430	268,935	762,495	762,423	212,234	550,189	269,007	56,701	212,306
2 Colleges of arts and sciences	439,449	162,959	276,490	249,738	105,830	143,908	189,711	57,129	132,582
3 Independent technical and professional schools	210,176	57,442	152,734	178,409	48,639	129,770	31,767	8,803	22,964
4. Teachers colleges and normal schools	150,059	66,512	83,547	78,963	42,855	36,108	71,096	23,657	47,439
5 Junior colleges	188,139	118,802	69,337	121,069	78,118	42,951	67,070	40,684	26,386
6. Negro institutions	58,842	21,769	37,073	26,993	11,856	15,137	31,849	9,913	21,936

with the increase in women students (17 percent). The distribution of the increase in women students is about the same between those entering college first time and those who have been in college before.

TABLE 4—ESTIMATED INCREASE IN FALL ENROLLMENT, MEN AND WOMEN STUDENTS, 1945 AND 1946

Item	Fall 1945	Fall 1946	Increase Amount	Increase %
All Students	926,000[a]	2,078,095	1,152,095	124
Entering college first time	291,000	696,419	405,419	139
In college before	635,000	1,381,676	746,676	118
Men	360,000	1,417,595	1,057,595	294
Entering college first time	121,000	499,532	378,532	313
In college before	239,000	918,063	679,063	284
Women	566,000	660,500	94,500	17
Entering college first time	170,000	196,887	26,887	16
In college before	396,000	463,613	67,613	17

[a] Does not include an estimated enrollment of 26,000 not distributed.

Although almost two-thirds of the one million increase in enrollment of men over last year consists of those who have been in college before, the highest relative increase (313 percent) has been in enrollment of men in college for the first time, from 121,000 in the fall of 1945 to 500,000 this fall.

There is a significant tendency for relatively more men and veterans to be enrolled in publicly controlled institutions. This difference is not great among the 131 universities, but is marked in the junior college group. Of total fall enrollment in publicly controlled junior colleges 70 percent are men and 50 percent are veterans In privately controlled junior colleges men are 51 percent and veterans 33 percent of total enrollment

The statistics reported to this YEAR BOOK by each of the accredited institutions for the latest available year are shown in the table on pages 695–715.

URANIUM. Under the terms of the Atomic Energy Act, passed in July, control in the United States of the raw materials and lands producing uranium and thorium passed under the control of the all-civilian Atomic Energy Commission.

Control of similar deposits in Mexico by the government was decreed October 16. New deposits of uranium-bearing ore were discovered in Chihuahua. See ATOMIC ENERGY.

URUGUAY. A South American republic. Area: 72,172 square miles. Population: 2,250,820 (1946). Capital: Montevideo.

Uruguay is mostly a land of hills and rolling plains, with coastal lowlands on the south and east. Annual temperatures range from about 50 degrees to about 72 degrees.

The People. Ninety percent of the population of Uruguay consists of persons of European descent; most of the rest are mestizos. Densities of population range from 12.7 per square mile in the Department of Artigas to 108 6 in the Department of Canelones. Greatest density is in the southern littoral; elsewhere the population is evenly but thinly distributed. The largest cities are: Montevideo, 750,894; Paysandú, 50,000; and Salto, 48,000.

The official language is Spanish. Roman Catholicism is the predominant religion.

In 1943 there were a total of 245,129 students in 1,800 primary schools, 98 intermediate schools had a total enrollment of about 27,000 students In 1940 the National University had 6,061 students The Uruguayan Government in 1944 authorized expenditure of 10,000,000 pesos for city and rural school construction throughout the republic.

Government. Under the Constitution of 1934, Uruguay is a centralized republic of 19 departments The Congress is bicameral, with a Senate of 30 members and a Chamber of Deputies of 99 Members are elected every 4 years The Congress meets annually from Mar. 15 to Dec. 15, except in election years. The President is elected for a 4-year term and may be reelected after a lapse of 4 years A Cabinet of 9 members aids the President President-elect Tomas Berreta assumed office March 1, 1947.

Events, 1946. As the year opened Uruguay found relations with Argentina growing strained. The immediate tension resulted from the circulation of the "Larreta Doctrine" late in 1945. Uruguay's Foreign Minister, Rodriguez Larreta, proposed that all American republics act jointly against any American republic that violated democratic rights. No specific methods were suggested and the character of the action of intervention was left open to intergovernmental discussion.

A further contributing factor to the uneasy relations was that Uruguay permitted Argentine political refugees to indulge in anti-Perón propaganda. On April 23 Argentine Ambassador Gregorio Martínez referred to Foreign Minister Larreta "as a puppet of the United States who stabbed Argentina in the back." Simultaneously, Argentina cut Uruguay off from all wheat exports, creating a situation that resulted in the resignations of Minister of Labor Rafael Schiaffina and Minister of Education Daniel Castellano. Both men refused to concur in the formulation of a decree rationing bread. With the realization that wheat stores would be exhausted by June, the Uruguayan Government requested 50,000 tons of wheat from the United States. Late in April the United States agreed to make shipments of 8,000 tons of wheat in May. After the United States agreed to help Uruguay, Argentina technically resumed wheat shipments.

Argentina also left no doubt of her political

interest in Uruguay, especially in regard to the forthcoming November Presidential election, and indicated her support of Luis Alberto de Herrera, a vigorous admirer of Argentina's President, Juan D. Perón and leader of an ultranationalistic party. On April 25 the Argentine Embassy in Washington denied there was any political pressure involved in Argentina's refusal to Uruguay's request for 100,000 tons of wheat.

On July 1 a plot by military and police factions to seize control of the Government was smashed and the leaders arrested. Details of the abortive coup were announced by Dr. Juan J Carbajal, Minister of the Interior, who said Col. Estebán Christi, former chief of the Uruguayan air force, planned the undertaking. Among those arrested in the carefully planned raids in Montevideo, were eight army officers, six police officials, and several civilians. Christi had contributed numerous articles to *Debate*, the wartime pro-Nazi newspaper of Herrera's party. The Herrerista national committee, however, denied any connection with the plot. During the process of rounding up the suspects, the army had been placed in a state of alert, but no units were brought into Montevideo. Inspiration for the plot was attributed to the APRE (*Asociación Pro-Renovación del Espíritu*), a secret organization of military officers who admired the totalitarian regime of former President Gabriel Terra.

Uruguay and the Soviet Union negotiated a three-year trade agreement on August 9, based upon the most-favored-nation treatment and calling for an exchange of Russian coal, lumber, and oil for Uruguayan fats, vegetable oils, meat, and wool. The treaty, the first of its kind to be arranged by the Soviet Union with a Latin American country, was viewed as a precedent for other Russo-Latin American commercial pacts.

During September preparations for the Presidential campaign grew more active. On September 29, the Herrerista National party selected its party leader, Luis Alberto de Herrera, as Presidential candidate and Dr. Martin Etchegoyer as Vice Presidential candidate. Within a week the Administration's party, Colorados Batllistas, nominated Public Works Minister Tomas Berreta and Congressman Luis Batlle Berres as its Presidential and Vice Presidential candidates Other candidates in the Presidential race included Colorado-supported former President Alfredo Baldomir and former Minister of Labor Rafael Schiaffino, the Independent Nationalists' Alfredo Garcia Morales, the Catholic party's Joaquin Seco Fila, the Socialists' Dr Emilio Frugonit, Ambassador to the Soviet Union, and the Communists' Pedro Cerruti Crosa Despite the three candidates on the Colorado ticket the vote would not be split, because the electoral system provided that the candidate receiving the largest number of votes will be regarded as having all the votes cast for members of his party.

At the same time there existed the likelihood that no candidate would assume the Presidency. At the polls on November 24 voters would also decide on a Constitutional amendment providing for the establishment of a "collegiate system"—somewhat based on the Swiss cantonal system—which would replace the President with an executive council of nine members.

By November 25 the election results showed a victory for Berreta. Although Herrera polled 169,728 votes to Berreta's 165,968, the total vote for the Colorado party was 264,626 Herrera's party gained 176,628; the Independent Nationalists, 52,121; the Catholic party, 31,574, and the Communists 29,141. The proposed amendment in favor of the collegiate system was defeated. The Colorado party won control of both houses of Congress, but lost ten seats in the Chamber, while the Herreristas gained seven seats in the Chamber and won control of several municipalities formerly held by the Colorados. Interpretation of the election results from Uruguay indicated that Herrera had won a moral victory by polling more votes than any other single candidate.

On December 30 Uruguay signed a commercial treaty with Argentina providing for the construction of a power project which would provide both countries with low-rate electricity and irrigation for vast areas.

National Economy. Uruguay's economy is pastoral and agricultural. Stock raising is the most important industry. Meat and meat products, wool, hides and bristles are major exports of the country. Other pastoral exports include dairy products, casein, and cheese. Cattle slaughtered in 1944 totaled 636,318 head. Production of tanned cattle hides and sheepskins totaled 1,062,052 pieces during 1944. Agriculture is the second industry in importance. Wheat, corn, oats, and linseed are the leading domestic crops. Other crops are grapes, tobacco, peaches, oranges, and pears.

In addition to meat packing and processing (freezing, canning and dehydrating), Uruguay manufactures a wide variety of goods. Among the most important are: cotton and woolen textiles, electrical machinery, batteries, transformers, refrigerators, automobile tires and tubes, furniture, enamelware, glass, and glassware, wines, and pharmaceuticals.

Foreign Trade. Uruguay's exports in 1944 reached a total value of $97,559,000. Wool was the chief export commodity, and accounted for 41 percent of the total value of all exports; meat and meat products ranked second amounting to 30.5 percent of total value; hides and bristles 11.4 percent. The United States was the leading purchasing country, and took 47.7 percent of the total exports in 1944; Great Britain came second, purchasing 32 percent of the total; Brazil took 3.5 percent, and Argentina 2.8 percent. Venezuela, Mexico, Peru, and Ecuador together bought about 1.6 percent of the total. The leading Uruguayan exports in 1944, according to value, were: wool, $40,919,000; meat and meat products, $29,721,000; hides and bristles, $11,133,000; agricultural products, $5,972,000; yarn, thread, textiles and their manufactures $5,056,000; mineral products, $2,220,000, miscellaneous manufactures, $1,866,000.

Uruguay's imports in 1944 were valued at $72,446,000, approximately 13 5 percent higher than imports in 1943. Raw materials accounted for 30.7 percent of total imports; fuels and lubricants 20.3 percent, and foodstuffs, 13.5 percent. The United States furnished 26 percent of Uruguayan imports in 1944; Brazil 22.2 percent, and Argentina 12.8 percent. Venezuela, Ecuador, Peru, Paraguay, Chile, Mexico, Cuba and Colombia together supplied an aggregate of 19.7 percent. The leading import commodities for 1944 listed according to value were: raw materials, $22,199,000; fuels and lubricants, $14,721,000; foodstuffs $9,781,000; general merchandise $7,612,000; construction materials $7,061,000; general machinery and parts, $1,741,000; hardware, $1,463,000; drugs and chemicals $1,160,000.

Imports for 1945 were $114,800,000 of which the United States provided $29,100,000; Brazil $19,300,000; Argentina $11,800,000; and Great Britain $4,500,000.

JOSEPH P. BLANK.

VATICAN CITY. A sovereign state, officially called the State of Vatican City, established within the city of Rome as the seat of the Papacy (June 10, 1929) in accordance with the Italo-Vatican (Lateran) Treaty of Feb. 11, 1929. Ruler: The Supreme Pontiff, Pius XII (Eugenio Pacelli), born in 1876; elected Pope (262nd), as successor of Pius XI, Mar. 2, 1939; crowned Mar. 12. 1939.

The area of Vatican City is 108.7 acres, including St. Peter's Square, and in addition 13 ecclesiastical buildings outside of its limits enjoy extraterritorial rights. It has its own coinage, import duties, railway station, and its postal, telegraph, and radio facilities. The estimated population in 1941 was 970. Under the Constitution of June 7, 1929, the Pope exercises full legal, judicial, and executive powers. He delegates administrative authority within Vatican City to a Governor, who is assisted by a counselor general and other officials. The legal system is based on canon law and ecclesiastical rules. The chief advisers of the Pope are the members of the College of Cardinals, who are appointed by him for life and elect his successor upon his death. From Vatican City the 12 committees forming the Curia Romana carry on the central administration of the Roman Catholic Church. Relations between the Church and the governments of the world are conducted by the Papal Secretary of State. The Holy See in 1945 maintained diplomatic relations with 44 governments and had unofficial relations with a number of others.

In the largest consistory in the history of the Sacred College, thirty-two prelates, four of them from the United States, were elevated to Cardinals on February 18. For the first time in six centuries, the Sacred College was marked by a non-majority of Italians, twenty-seven out of sixty-nine. Also, for the first time in history the occasion gave the United States five places in the College of Cardinals. With the ceremony's end, Cardinals numbered sixty-nine, one below the maximum established by Sixtus V in 1486.

Following is the list of prelates who were created Cardinals at the secret Papal consistory:

United States—Archbishops Francis J. Spellman of New York, John J. Glennon of St. Louis, Samuel A. Stritch of Chicago and Edward Mooney of Detroit
Canada—Archbishop James Charles McGuigan of Toronto.
Cuba—Manuel Arteaga y Betancourt, Archbishop of Havana
Brazil—Carlos Carmelo de Vasconcellos Mottas, Archbishop of São Paulo, Jaime de Barros Camara, Archbishop of Rio de Janeiro
Chile—José Caro Rodriguez, Archbishop of Santiago.
Peru—Juan Gualberto Guevara, Archbishop of Lima.
Argentina—Antonio Caggiano, Bishop of Rosario
England—Bernard Griffin, Archbishop of Westminster
Hungary—Joseph Mindszenthy, Archbishop of Strigonia (Gran), and Primate of Hungary.
Germany—Conrad von Preysing, Bishop of Berlin, Joseph Frings, Archbishop of Cologne, Clemens August von Galen, Bishop of Muenster
Australia—Norman Gilroy, Archbishop of Sydney.
Netherlands—Johannes de Jong, Archbishop of Utrecht.
China—Thomas Tien, Titular Bishop of Ruspe and Apostolic Vicar of Tsing Tao
France—Emile Roques, Archbishop of Rennes; Pierre Petit de Julleville, Archbishop of Rouen; Jules-Géraud Saliège, Archbishop of Toulouse.
Poland—Adam Stefan Sapieha, Archbishop of Cracow.
Turkish Armenia—Gregory Peter XV Agagianian, Patriarch of Armenia.
Portuguese East Africa—Teodosio Clemente de Gouveia, Archbishop of Lourenço Marques.
Spain—Enrique Pla y Deniel, Archbishop of Toledo and Primate of Spain; Agostino Parrado y Garcia, Archbishop of Granada; Emanuele Arce y Ochotorena, Archbishop of Tarragona.
Italy—Giuseppe Bruno, Secretary of the Sacred Congregation of the Council, Clemente Micara Papal Nuncio to Belgium and Titular Archbishop of Apamea, Syria; Ernesto Ruffini, Archbishop of Palermo; Benedetto Aloisi Masella, Papal Nuncio to Brazil and Titular Archbishop of Mauritania.

In his address to the new Cardinals, Pope Pius XII sounded a challenge of the Roman Catholic Church to her enemies. Proclaiming the unity and completeness of the Church, the Pope declared that the "faithful, and more precisely the laity, are in the front line of the church's life." Throughout the Pontiff's highly militant speech, he emphasized the supra-nationality of the church that appealed to men everywhere to come to the Church instead of worshiping an all-powerful State and imperialistic tendencies. This political note was strong in many sections of his address which condemned expansionism and "big power" force and exhorted the people to rally to the church and defend it against Communism.

Earlier in the year, on January 19, the Pope expressed anxiety over the Ruthenian Church, most of whose members live within the Soviet borders. While world assemblies were proclaiming religious freedom, the Pope said, the regions of Galicia and sub-Carpathia were undergoing "grave vexations for their fidelity to the Apostolic See. There are even forces working with all their power to the end that they (Ruthenian Catholics) leave the bosom of the mother church and join the dissendents." This reference applied to Patriarch Alexius of Moscow, then recently elected by the dissident Russian Bishops, who the Pope said, sent a letter to the Ruthenian Church, asking for its desertion from the Catholic Church.

On March 17 the Moscow radio broadcasts reported that the Uniate Church of the Western Ukraine had decided to break its union with the Catholic Church of Rome and join the Russian Orthodox Church. Sounding a political as well as religious theme, the Synod of the Uniate Church, meeting in Lwow, sent a message to Premier Stalin declaring that the "abolition of the clerical sovereignty of the Vatican has become possible only now that all Ukrainians have been reunited in a single state. Henceforth nothing can separate our unified Ukranian people."

In commenting on the split, a statement issued by the Vatican's Sacred Congregation of the Oriental Church said that Russian authorities had forced a false and invalid denunciation of the Uniate Church's accord with Rome. Charging a few renegade priests with sponsoring the withdrawal, the statement asserted that the move could not be recognized because "it must be recalled that the Bishops of these dioceses and their respective auxiliaries have been either deported or imprisoned while a large part of the clergy has been put into a position where they cannot exercise their ministry."

Pope Pius XII grew increasingly forthright in his addresses on preserving the strength of the Church as Europe began shaping its postwar political future. In an address to officials of the "Italian Catholic Action Youth" on April 20, the Pope urged his audience to fight more strongly than ever against anti-Christian forces in politics and in private life. On May 12 the Pope urged the women of Italy to vote only for those parties that were pledged to "respect the rights of God and of religion." In referring to the right to vote as sacred, the Pope told his audience of nearly 40,000 women to vote according to the dictates of conscience and God and be "Catholically active." On the eve of elections in Italy and France on June 1 the Pope once again touched on the idealogical struggle between the Vatican and the left wing and appealed to voters to cast their ballots against "state absolutism" and the "wreckers of Christian civilization."

The United States received the first saint among

its citizens on July 7 when the Pope canonized Mother Frances Xavier Cabrini in the Basilica of St. Peter. Mother Cabrini, born in Italy, went to the United States in 1889 when she was thirty-nine years old and worked among the immigrants. She died in Chicago, Ill., on December 22, 1917.

After the arrest and sentence to prison of Archbishop Aloysius Stepinatz, Roman Catholic primate of Yugoslavia, in October by the Tito Government for alleged crimes as an "enemy of the State," the Vatican excommunicated all persons who contributed morally or physically to the judicial action against the Archbishop.

In the late months of the year 1946 an anti-clerical campaign, waged by several Italian newspapers and political organizations, was vigorously denounced by the Vatican newspaper, *L'Osservatore Romano*, and, in effect by the Pope in references to the "negators of God" and the "profaners of the divine church." The Italian courts issued a precedent-shattering decision on December 23 when it convicted Ruggero Maccari, editor of the anti-clerical weeklies, *Don Basililio* and *Pollo*, to two years in prison for having "offended the religion of the state," by slandering clergymen. The prosecution based its claims on the premise that no civilized people could countenance insults against religion and that criticism against the clergy on political grounds should be objective, not pornographic.

VENEZUELA. A South American republic. Area: 352,143 square miles. Population: 4,005,000 (1942). Capital: Caracas.

Venezuela has two highland regions, the Guiana highlands occupying nearly one-half of the country in the southeast; and the Venezuelan highlands extending northeastward from the Colombian border to the Caribbean. The Maracaibo lowlands form the extreme northwestern section of the country, and between the highland regions lie the extensive plains of the Orinoco. The northwestern lowlands have hot, humid climate, while the central coastal region is hot and dry. The hot climate of the Orinoco plains and somewhat cooler climate of the Guiana highlands are subject to extremes of wet and dry seasons.

The People. According to the census of 1941, about 3 percent of the population of Venezuela was Indian; classification by race, except Indian, is not included in Venezuelan census figures. Densities of population range from 1 0 persons per square mile in the State of Bolivar to 155.9 in the State of Nueva Esparata. Highest regional density is in the vicinity of Caracas. The largest cities are: Caracas, 269,000; Maracaibo, 110,000; and Valencia, 49,200.

Spanish is the official language. Roman Catholicism is the predominant religion.

In 1945 there was a total enrollment of 288,835 in 5,543 elementary schools; enrollment in 122 intermediate schools totaled 11,590; and there were 3,544 students in two universities. In 1944, seven new elementary schools were established to instruct more than 4,000 pupils, and 6 new high schools are under construction or soon to be built. The Normal School in Caracas, with a primary school for 1,000 students was completed in that year.

National Economy. Although agriculture is the basis of Venezuela's economy, the country depends heavily on oil exports. The principal export crops are coffee and cacao, but sugar, corn, rice, potatoes, tobacco, fruits and vegetables, cotton, and sisal are important. Cattle raising is also an important occupation.

Next to the United States, Venezuela is the Western Hemisphere's greatest supplier of oil, and is one of the world's largest exporters of petroleum. Petroleum and its derivatives represented over 93 percent of the total value of exports in 1938 and 95 percent in 1945. Total Venezuelan crude oil production in 1945 amounted to 323,361,253 barrels. Venezuela also produces gold and diamonds, about 30 percent of which are industrial diamonds. Other minerals include coal, silver, copper magnesite, tin, asphalt, asbestos, mica and salt.

Manufacturing in Venezuela is largely confined to consumer goods. Cotton textiles, soap, cigars, cigarettes, candles, cheese, and vegetable oils are the chief articles made.

Foreign Trade. In 1945 total exports were valued at 1,019,682,000 bolivares, and total imports at 680,980,000 bolivares. Petroleum and its derivatives accounted for more than 95 percent of total exports In 1945 the United States supplied 88 percent of imports.

Government. Venezuela's Constitution of 1936 provides for a federal union of 20 states and 2 territories. The Congress is bicameral, with a Senate of 40 members and a Chamber of Deputies of 98. Ninety day sessions of Congress are held annually beginning on Apr. 19. The President is elected by Congress; Senators by the state legislature; and deputies by municipal councils. (This provision was changed in 1945 by constitutional amendment providing for election of deputies by direct vote.) The state and municipal governing bodies are also elected by direct vote. Isaías Medina Angarita became President in 1941 for a 5-year term In Oct. 1945 the Medina Government was overthrown by revolution, and Rómulo Betancourt became head of a provisional junta.

Events, 1946. The year opened with the revolutionary government of President Rómulo Betancourt, who led the uprising that deposed Isías Medina Angarita in October, 1945, engaging in political accusations and arrests. President Betancourt, avowedly liberal and a firm opponent of a long line of military Presidents, arrested five Dominican citizens on espionage charges in early January. This move was followed by the arrest on January 14 of Noe Valera and Colonel Narcisco Casique, who were accused of being leaders in a counter-revolutionary plot. The Government communique on the arrests announced that both had signed a confession admitting that they were agents for a "high official" in the Medina-López Contreras military clique. A few days later, the Supreme Court announced that its Chief Justice, Antonio Pulido Villafañe, was involved in machinations to take over the Government, pending the elections No disturbances accompanied the arrests At a Palace banquet, President Betancourt said that he had hoped to announce an election date, but that "the laborious nature of the task made future delay necessary."

After this brief flurry of trouble, the Betancourt regime endeavored to stabilize its administration and initiate reforms. Foreign investors were assured that the revolutionary Government intended to take no measures that would seriously affect foreign capital investments, particularly in oil production. Despite pressure to reopen the claims contesting the validity of concessions held by American and British oil companies, especially in the rich Maracaibo oil basin, Betancourt said he would respect the 1943 oil legislation passed by the Medina Government and enforce its provisions.

In February the Betancourt junta began instituting political reforms by allowing the Com-

munists to hold meetings. It assured Venezuelans that complete freedom of the press would be upheld and that peoples and parties could freely criticize the Government, but conspirators and those attempting to use force to overthrow the Government would be summarily repressed.

President Betancourt further assured his people that elections would be held by October. For the first time in the country's history women would be eligible to vote and the elections would be based on a secret ballot.

In early March this promise was clarified in a law that provided for the election of a Constitutional Assembly by universal secret ballot, as the first step leading to a presidential election by direct vote. The Constitutional Assembly, the junta announced, would write a new democratic Constitution. Under the old laws, Presidents were selected by Congress.

During February Betancourt began his agrarian reforms by parceling out to farmers the vast land holdings of late President Juan Vincente Gómez who died in 1935 after twenty-eight years of dictatorial rule.

After March 15 when the revolutionary junta restored constitutional liberties to Venezuelans, friction between Communists and other political groups grew more vigorous. During the Medina regime, the Communists were used as a foil to balance opposition from the army and business interests. Betancourt, however, was as vociferously anti-Communist as he was anti-military. On March 14 he declared that no Communists would hold office in his Cabinet.

Political rioting occurred during various Communist meetings. At Campo Elías, Yaracuy Province, townspeople and Communists clashed, and in the provinces of Aragua and Carabobo, the Communists and Acción Democrática (Government Party) met in a riot. Some injuries on both sides were sustained and numerous arrests were made. During this period a serious split occurred in Communist ranks over Party leadership. Two factions strove for control. Both applied to the Government for permission to use the official name of "Communist Party of Venezuela" and sent emissaries to other Latin American countries, particularly Cuba, to gain recognition abroad for their faction.

Oil, the largest source of Venezuela's revenue and a delicate subject of labor unions, nationalism, and government revenue, proved a knotty problem during May and June. On May 18 President Betancourt declared that no "strike atmosphere" surrounded the discussions between oil workers and companies. The companies refused to meet the demands of the new Federation of Venezuelan Oil Workers, led by President Luis Tovar (Acción Democrática) and Secretary Jesús Faria (Communist). An imminent strike was averted by Government arbitration that gave the workers a 50 percent increase in wages and persuaded the unions to give up the closed shop.

The government endorsed United States oil companies' participation in developing and marketing Venezuela's oil. President Betancourt declared that this cooperation would serve to appreciably increase government income and permit needed expenditures. This factor showed its importance in the 1946–47 budget which was 59 percent higher than the expiring one and included an extensive program of public works. The new budget of $236,000,000 derived one third of its total from the petroleum cash reserve and current oil royalties added a further $75,000,000. In comparison to this revenue, the remainder of the budget would be made up from income taxes, reaching everyone earning more than $225 a month—$26,400,000; revenues from liquor, cigarette, and stamp taxes—$32,100,000; and import taxes—$37,500,000.

In early June, Educational Decree 321, promulgated by Minister of Education Dr. Humberto Garcia Arocha, with the approval of the Government, modernized Venezuela's educational system, but at the same time, provided that students of the non-denominational public schools could be exempt from final examinations on the basis of a lower average grade than that required for exemption of students of the private schools, most of which are Catholic. The reason given by Dr. Arocha was that public school teachers had to meet more rigid requirements than private school teachers, thus the formers' standards were higher.

Publication of the decree provoked a storm of protest and cries of "anti-clerical" from the influential conservative Copei Party. The Acción Democrática and the Communist parties were equally vocal in defending the decree. Protest meetings and demonstrations were begun by private schools and followed by counter-demonstrations by public schools. Disorders grew to proportions that forced the Government to prohibit further demonstrations by either side. Despite this order, 7,000 private school students marched past the presidential palace on June 8. Two days later more than 40,000 members of the Workers' Federation staged a mass meeting supporting the controversial decree. Minister of Education Arocha and his chief assistants resigned on June 9 because the Cabinet refused him unanimous support. The resignation was accepted five days later and Dr. Antonio Anzola Carrillo was appointed to the post. In leaving Dr. Arocha accused the government of "casting aside under the pressure of certain interested sectors the entire doctrine behind the decree" and initiating a "policy of appeasement." The decree was withdrawn.

An alleged counter-revolutionary attempt to overthrow the revolutionary junta was prevented on July 20 by Government authorities who arrested thirty of the leaders. Most of those arrested were followers of former President General Eleazar López Contreras in exile in Colombia, the government reported. Included in the arrests were several Copei party leaders, but these arrests were termed "accidental." The coup was scheduled to follow President Betancourt's departure with a retinue of officials and army men for Mexico. The Government issued a communique reassuring the people of their constitutional liberties for the elections on October 6.

The seven-man revolutionary tribunal that tried more than 150 former Government officials for fraud and misuse of funds closed its nine month session at the end of July with the convictions of Gen. Felix Galavis and Dr. Pedro Manuel Arcaya, a prominent lawyer. The court reviewed the deeds of many of the more prominent officials of the Gómez and Contreras regimes. Most of the accused were convicted and ordered to restore specific amounts to the Treasury. López Contreras and Medina each were accused of the mismanagement of more than $4,000,000.

Numerous political arrests were made in August on charges of counter-revolutionary activities and the publishing of counter-revolutionary leaflets. With the elections imminent and with its own power at stake, the provisional junta thought the better of the arrests and on August 1 declared a general amnesty for the prisoners.

Throughout the year provisional President Betancourt closely followed the hemispheric policy of the United States without incurring the ire of his Latin American neighbors. In a statement on February 4 he endorsed the peace plans of Spruille Braden, United States Assistant Secretary of State for Latin-American Affairs and advocated the use of a *cordon sanitaire* around any American government attempting to suppress human liberties. Since hemispheric unity was a reality in war, President Betancourt declared it was essential in peace, and "in this connection it is very heartening to see the clarity and frankness with which this has been expressed by Mr. Braden, who more than once has insisted that the democratic development of Latin America, and the development of the weak economies of these countries, is an indispensible condition for mutual friendship, without suspicions, between the United States and her neighbors to the South."

In May President Betancourt expressed full agreement in principle with President Harry Truman's proposal for cooperation between the armies of the American republics, providing that the nations involved were democratic. Full standardization of arms was desirable for the hemisphere, he stated, and a United States mission would soon arrive to modernize and train the Venezuelan army. Agreement for this military mission was signed on June 3 for a two year period with provisions for extending the term.

The problem of food a critical issue in the view of the government proved a constant rein on the progressive measures. According to Eduardo Mendoza Goiticoa, Minister of Agriculture, hunger and malnutrition faced the country unless the United States sold Venezuela adequate agricultural machinery and equipment to place the country on a self-sufficient basis. The Minister pointed out that Venezuela was suffering from an annual deficit of 105,000 tons of produce. President Betancourt sent a nonpartisan economic mission to the United States in June with 24,000,000 bolivares to purchase needed equipment.

In August fifty American business men, including several oil men, drafted a letter to the United States Embassy at Caracas stating that their interests were jeopardized by the growth of the Communists and that the government had accepted Communist collaboration. Leaders of the various political parties were unanimous in saying that the fears had no basis and President Betancourt announced that the provisional Government had signed no pact with the Communists.

As the October 27 elections approached President Betancourt's Acción Democrática party appeared to be the strongest. Although considered leftist, the party was opposed to the Communists, whose main election platform was based on oil reforms leading to future nationalization of the petroleum industries. Ranking behind the Acción Democrática was the Copei party, supported by powerful business interests and, unofficially, by the Catholic Church.

After the ballots of more than a million voters had been tabulated, the Acción Democrática emerged as the landslide victor with an unofficial count of 790,103 votes. The Copei party stood a poor second with 133,954 votes. The Communists received about 4 percent of the votes.

The results of the election apparently didn't satisfy all the political elements for on November 1 a counter-revolutionary attempt against the provisional Government was suppressed and nine leaders arrested in Caracas. Officials reported that a large cache of arms and munitions was seized. The Government version said that the attempt was directed from the United States by former President Contreras.

On December 11 President Betancourt announced that a twelve hour revolt by a group of rebels in Maracay, center of Venezuela's Army and Air Force, had been put down by Government forces. The insurgents, it appeared, had hoped to capture President Betancourt and his Cabinet on their intended visit to the graduation ceremonies of the aviation school at Maracay. At the last moment, President Betancourt changed his mind. Sporadic fighting continued in the inland state of Trujillo where isolated groups of rebels held out until December 15. Civil rights were suspended by the Government.

The new Constituent Assembly formally opened on December 17 with the primary job of writing a constitution. Consisting of 137 members of the Acción Democrática, nineteen of the Copei, two of the Unión Republicana Democrática (conservative followers of former President Medina) and two of the Communist, the Congress appointed Dr. Andres Eloy Blanco, vice president of the Acción Democrática party, as the President of the Congress.

One of the first measures passed by Congress was an income tax reform bill, instituting a permanent progressive surtax on profits. The law imposed taxes on oil companies, most of which are owned by United States corporations, reaching 28 percent, according to the amount of profit.

JOSEPH P. BLANK.

VETERANS ADMINISTRATION. An independent Federal agency established by the Act of July 3, 1930 (46 Stat. L, 1016), to unify the work of various Federal bureaus administering direct benefits to veterans and their dependents and beneficiaries On October 31, 1946, 17,860,000 veterans of all wars were eligible for benefits; of these, 13,909,000 served in World War II.

VA furnishes medical care for veterans with service-connected disabilities and, if a vacancy exists, for those with non-service connected illnesses unable to pay for treatment. On October 30, 1946, 83,311 veterans were receiving treatment in VA's 119 hospitals and homes, and 13,140 were patients in non-VA hospitals. Of the total of 96,451 veteran-patients, 31,844 were being treated for service-connected disorders.

To meet a load ultimately expected to reach a total of 250,000 patients by 1975, VA embarked upon the world's largest hospital construction program, which by 1950 will expand its present number of hospitals to about 200. Sites for new hospitals are being chosen near medical centers, whenever possible, so that VA might realize benefits of affiliation and close liaison with outstanding professional men in these centers.

Disabled veterans receive extensive guidance from VA in selecting courses and throughout their training. On October 31, 1946, 88,772 handicapped veterans were in schools and colleges under Public Law 16, and 70,791 were taking on-the-job training Length of training depends on the time necessary to complete the course and become employable. Four years is the maximum, except in special cases.

Able-bodied veterans, in education or training, under the G.I. Bill receive a minimum of supervision from VA On October 31, 1946, 1,214,241 veterans were enrolled in educational institutions, and 595,541 were taking on-the-job training. The

amount of education or training under the G.I. Bill depends upon length of service and ranges up to 48 months.

VA guarantees and insures loans for homes, farms, and businesses, up to a maximum of $4,000 for real estate loans, and $2,000 for non-real estate loans. By October 25, 1946, 482,553 veterans borrowed a total of $2,497,307,592. VA guaranteed and insured $1,155,913,251 of this amount. More than 90 percent of veterans—or 426,699—used their loans to buy or build homes; 39,897 went into business; and 15,957 purchased farms and farm equipment.

VA pays readjustment allowances to jobless veterans or to those self-employed who earn less than $100 a month. The program is administered by the State Unemployment Compensation Commisson under individual contracts with VA, which reimburses them both for the amounts they pay to veterans and administrative expenses incurred. During the week ended November 2, 1946, 976,865 continued claims for readjustment allowances for unemployment were filed. The peak was reached in April, 1946, when nearly 1,800,000 veterans were on the rolls. October payments totaled $91,947,000, compared with $160,071,000 for April, 1946.

During September, 1946, 249,949 self-employed veterans drew $25,358,964 in readjustment allowances. About 85 percent were farmers.

VA conducts the largest mutual insurance system in the world. Within the past six years, it wrote more than 18,000,000 National Service Life Insurance policies with a total face value of nearly 150 billion dollars As of October 31, 1946, about one-third of this number still was in force. In addition to this insurance underwriting for World War II veterans, VA has more than $2,350,000,000 worth of United States Government Life Insurance in force on the lives of nearly 550,000 veterans of World War I. By the end of October, VA was making monthly payments to the beneficiaries of 372,807 veterans who lost their lives and who were protected at the time by National Service Life Insurance.

VA pays monthly pensions or compensation to more than 2,770,000 disabled veterans and their dependents. Payments range from $10.35 to $360 a month per case. At the end of October, 1946, there were 2,237,358 cases of disability compensation or pension, and 537,137 cases of death compensation or pension.

Disbursements for compensation and pension from July 1, 1945, to June 30, 1946, totaled $1,260,000,000 (B). Of this sum, $733,000,000 was for World War II service, $346,000,000 for World War I service; $24,000,000 for peacetime service; and $157,000,000 for service in the Spanish-American and previous wars.

OMAR N. BRADLEY.

VIRGIN ISLANDS, U.S. An insular possession of the United States, situated about 70 miles east of San Juan, Puerto Rico. This possession, acquired in 1917 for $25,000,000 through a treaty with Denmark, forms part of the chain of the Lesser Antilles which extends from Puerto Rico to the coast of South America. Of the 50 islands in the group only the three largest are inhabited—St. Thomas, St. John, and St. Croix. Total area, 132 square miles; population, 24,889 in 1940; 22,012 in 1930. Areas and populations (1940) of the individual islands: St. Thomas, 28 square miles, 11,265 inhabitants; St. John, 20 square miles, 722 inhabitants; St. Croix, 84 square miles, 12,902 inhabitants. Of the whole population, 69 per cent in 1940 were Negroes, 22 per cent of mixed race, 9 per cent whites; 1942's birth rate 34.8, death rate 18.9, per 1,000. Capital, Charlotte Amalie (pop. 9,801 in 1940) on the island of St. Thomas. Illiteracy is practically confined to the population over 21 years of age (16 per cent in 1930). Most of the people speak English.

Defenses. The islands are the most eastern outpost of the United States and are situated so as to furnish protection both to United States holdings in the Caribbean Sea and the Panama Canal. The fine harbor of Charlotte Amalie provides shelter for as many as 23 warships at one time. Defenses constructed in this region during the past few years have been primarily to bulwark the great naval, military, and air bases in Puerto Rico. They include a permanent U.S. Marine Corps air base near Lindbergh Bay on St. Thomas, a large submarine base at Charlotte Amalie Harbor, and a U.S. Army air base on St. Croix near Frederiksted.

Production and Trade. St. Thomas has largely depended upon commerce, trade, and shipping, and its resources have grown by defense activities. On the other hand the municipality of St. Croix has depended chiefly upon agriculture for its revenues. During recent years there have been repeated droughts resulting in decreases in sugar production and cattle raising, with resulting unemployment. St. Croix and St. Thomas exported 266,690 proof gallons of rum and liqueurs in 1946.

Finance. For the fiscal year ended June 30, 1946, actual revenues of the municipality of St. Thomas and St. John were $1,112,002 ($1,257,416 in 1944–45) while total budget appropriations were $1,083,851 ($1,152,496 in 1944–45). Revenues of the municipality of St. Croix were $262,257 in 1945–46 ($515,383 in 1944–45) while total budget appropriations were $421,658 ($580,558).

Government. During the first 14 years of American control the Virgin Islands had a naval government. In 1931 jurisdiction was transferred from the Navy Department to the Department of the Interior and a civil governor was appointed by the President Congress passed an Organic Act for the islands in 1936 which effected little change in the structure of the government although it did allow for a greater measure of political freedom. The autonomy of the two municipalities was retained and both have Municipal Councils, which when called in joint session, constitute the Legislative Assembly. The Governor is appointed by the President and holds office at his pleasure. Governor in 1946, William Henry Hastie (inaugurated May 17, 1946).

Events, 1946. The Virgin Islands received their first Negro Governor when President Truman appointed William Henry Hastie, former dean of Howard University Law School in Washington, D.C., to that post, replacing Charles Harwood.

VITAL STATISTICS. The outstanding vital statistics events of the postwar months in the United States may be traced in the movement of the marriage and birth rates, according to the United States Public Health Service. The time trend in these rates are given in tables 1 and 2, together with those for deaths, maternal and infant mortality, stillbirth, and divorce.

In June 1945, following the cessation of hostilities in Europe, the number of marriage licenses issued in the United States exceeded the number issued in the corresponding month of 1944. Ten months later, in April 1946, the increase in marriages resulted in an increase in births over those for April 1945. By September 1946, the provisional

birth rate for the United States had reached 27.9 per 1,000 population, a rate 34 percent higher than the corresponding rate for September 1945 and nearly 20 percent above the peak of the wartime rise in the birth rate that was reached in September 1942.

TABLE 1—CRUDE BIRTH AND DEATH RATES, MATERNAL AND INFANT MORTALITY RATES, AND STILLBIRTH RATIOS· REGISTRATION STATES,[a] FOR SPECIFIED YEARS

(Births and deaths exclusive of stillbirths Birth and death rates per 1,000 estimated population, maternal and infant mortality rates and stillbirth ratios per 1,000 live births)

Year	Crude Birth Rate	Crude Death Rate	Maternal Mortality Rate	Infant Mortality[b] Rate	Stillbirth Ratio
1946 *	23 0[c]	10 1[d]	(•)	36 1	(•)
1945	19 6[c]	10 4[d]	2 1	37 5	(•)
1944	20 2[c]	10 6[d]	2.3	39 8	27 0
1943	21 5[c]	10 9[d]	2 5	40 4	26.7
1942	20 9[c]	10 4[d]	2 6	40 4	28 2
1941	18 9[c]	10 5[d]	3 2	45 3	29 9
1940	17 9[c]	10 7[d]	3 8	47 0	31.3
1939	17 3	10 6	4 0	48 0	32 0
1938	17 6	10 6	4 4	51 0	32 1
1937	17 1	11 3	4 9	54 4	33 4
1936	16 7	11 6	5 7	57 1	34.4
1935	16 9	10 9	5 8	55 7	35.8
1934	17 2	11 1	5 9	60 1	36.2
1933	16 6	10 7	6 2	58 1	37 0
1932	17 4	10 9	6 3	57 6	37 8
1931	18 0	11 1	6 6	61 6	38 2
1930	18 9	11 3	6 7	64 6	39 2
1925	21 3	11 7	6 5	71 7	38 1
1920	23 7	13 0	8 0	85 8	...
1915	25 0	13 2	6 1	99 9	.
1910	.	14 7	.	.	. .
1905	. .	15 9	.	.	..
1900	. .	17 2	.	.	.

[a] Include entire continental United States, beginning with 1933 [b] Deaths under 1 year of age [c] Based on total population including armed forces overseas [d] Excludes armed forces overseas • Data not available * Estimated

In 1945, the number of marriage licenses issued in the United States increased 11 percent over the number for 1944, and in the first 6 months of 1946 the number issued was approximately 3 percent more than the total for the first 9 months of 1945. It is estimated that in 1946 the birth rate will be 17 percent higher than the rate for 1945 and 7 percent in excess of the maximum rate (21.5 per 1,000 population in 1943) for any of the war years.

The crude death rate for the United States remained at a comparatively low level during the war years. The rate of 10 1 per 1,000 population estimated for 1946 represents the lowest rate which has occurred in the entire time trend since 1900.

Approximately three quarters of the deaths that occur in the United States are charged to ten causes. In 1920, at the close of World War I, the ten leading causes of death in order of importance were: (1) pneumonia and influenza; (2) diseases of the heart; (3) tuberculosis; (4) intracranial lesions of vascular origin; (5) nephritis; (6) cancer; (7) accidents excluding motor-vehicle accidents; (8) diarrhea and enteritis; (9) premature birth; and (10) diseases of pregnancy.

This list changed radically in the following years. With the reduction in mortality from the infectious diseases, diarrhea and enteritis disappeared from the list, tuberculosis, and pneumonia and influenza dropped to positions of lesser importance. Concurrently, and partly as a result of the aging of the population, the degenerative diseases of the older ages moved to the top of the list. In 1945, the 10 leading causes of death were: (1) diseases of the heart; (2) cancer; (3) intracranial lesions of vascular origin; (4) nephritis; (5) pneumonia and influenza; (6) accidents excluding motor-vehicle accidents; (7) tuberculosis, (8) diabetes; (9) premature birth; and (10) motor-vehicle accidents.

The responsibility for the national collection of vital statistics in the United States was placed under the U.S. Public Health Service in the Federal Security Agency on July 16, 1946 when, under Reorganization Plan No 2, the Vital Statistics Division of the Bureau of the Census was transferred to this agency and there reconstituted as the National Office of Vital Statistics.

VOCATIONAL REHABILITATION, Office of. An agency of the U.S. Government which is the central instrument in the Federal-State system for restoration of disabled persons to the fullest physical, mental, social, vocational, and economic usefulness of their capabilities. Established July 6, 1943, as a constituent of the Federal Security Agency, the Office of Vocational Rehabilitation is charged with certification of Federal funds for States' use in rehabilitation work, establishing standards in the various areas of service, and furnishing technical assistance to the States

The system is financed through grants-in-aid from the Federal Government to the States.

During the fiscal year 1946, 169,794 disabled persons received services from 51 State general rehabilitation agencies and 30 commissions for the blind. Of this number, 36,106 clients were prepared for and placed in gainful employment, principally as auditors, teachers, draftsmen, laboratory technicians, retail managers, bookkeepers, secretaries, stenographers, clerks, office machine operators, waiters and waitresses, kitchen workers, bar-

TABLE 2—ESTIMATED MARRIAGES AND DIVORCES IN THE UNITED STATES· 1937 TO 1945

(All figures for 1945 are provisional, marriage figures for 1937 to 1944 are revised Divorces include annulments. Although totals are presented to the last digit as summated, it should not be assumed that they are accurate to the last digit Minus sign (−) denotes decrease)

	Marriages			Divorces		
Year	Number	Percent Increase over Preceding Year	Per 1,000 of the Population[a] Present	Number	Percent Increase over Preceding Year	Per 1,000 of the Total Population[b]
1945	1,618,331	11 4	12.3	502,000	25.5	3 6
1944	1,452,394	−7 9	11.0	400,000	11 4	2 9
1943	1,577,050	−11 0	11 8	359,000	11 8	2 6
1942	1,772,132	4 5	13 2	321,000	9 6	2 4
1941	1,695,999	6 3	12 7	293,000	11 0	2 2
1940	1,595,879	13 7	12 1	264,000	5 2	2 0
1939	1,403,633	5 5	10 7	251,000	2.9	1 9
1938	1,330,780	−8 3	10 3	244,000	−2 0	1 9
1937	1,451,296	6 0	11 3	249,000	5 5	1 9
Average, 1937 to 1939	1,395,236	.	10 8	248,000		1 9

[a] Estimated population present in continental United States as of July 1 of the given year, excludes armed forces overseas.
[b] Estimated total population as of July 1 of the given year; for the war years, 1940 to 1945, includes armed forces overseas.

bers and beauticians, hospital attendants, guards and watchmen, jewelers, shoemakers, machinists, welders, carpenters, airplane mechanics, auto mechanics, textile workers, bus and truck drivers, filling station attendants, construction workers, farmers and household workers.

Total annual earnings—excluding those of clients who became family workers, farmers, and others whose earnings were hard to estimate—increased 400 percent after rehabilitation, rising from an estimated rate of $11,600,000 before rehabilitation to an estimated rate of $56,300,000 afterwards. Of the group rehabilitated into employment, 27,022 or 75 percent were unemployed when they applied for services, 5,734 never having worked before and 6,993 only part-time.

MICHAEL J. SHORTLEY.

VOLCANO ISLANDS. A chain of islands in the western Pacific, about 710 miles south of Tokyo; also known as Kazan Retto. Iwo Jima, the principal island has an area of 8 square miles, and has a number of peaks—the highest being Suribachi (546 ft.) at the southern tip of the island. The other islands are Kita, and Minami. Total area: 10 square miles. Population (1940 estimate): 1,151 Under Japanese rule, Iwo Jima was a fortified air-base. On March 16, 1945, it was captured by armed forces of the United States after a 26-day battle.

WAGE AND HOUR AND PUBLIC CONTRACTS DIVISIONS. These Divisions of the U.S Department of Labor administer the Fair Labor Standards Act of 1938 (with the exception of its child labor provisions) and the Walsh-Healey Public Contracts Act The child labor provisions of the Fair Labor Standards Act are administered by the Child Labor and Youth Employment Branch of the Division of Labor Standards, U.S Department of Labor.

The Fair Labor Standards Act, which is popularly known as the Wage and Hour Law, applies to employees engaged in interstate commerce or in the production of goods for interstate commerce, including occupations necessary to such production. All such employees, unless specifically exempted, must be paid not less than 40 cents an hour and not less than time and one-half their regular rate of pay for all hours worked in excess of 40 in a single workweek. Minimum wage rates of 40 cents an hour or less have been established by wage orders issued on the basis of the recommendations of industry committees, for all industries in Puerto Rico, and with a few minor exceptions, all industries in the Virgin Islands under a section of the Act which permits rates lower than those established in the U.S. to apply in the Islands The Act also prohibits the shipment in interstate commerce of any goods produced in establishments in or about which oppressive child labor is employed. As of November 1946, the Act covered about 20,000,000 workers in the continental United States.

The Public Contracts Act, which applies to contracts made by the Government, or any agency thereof, for the manufacturing or furnishing of materials, supplies, articles or equipment in any amount exceeding $10,000, provides for the payment of prevailing minimum wage rates as determined by the Secretary of Labor, and overtime pay at time and one-half the basic rate for all hours worked over 8 in a day or 40 in a week, whichever method of computation will yield the employee the greater compensation. This Act also sets restrictions on child and convict labor and provides for standards of safety and health.

During the fiscal year which ended June 30, 1946, 43,830 inspections were completed under both Acts and 42,060 establishments were found subject to their minimum wage or overtime provisions. Of the establishments inspected, 21,050 or 48 percent were in violation of the minimum wage or overtime provisions of the Acts. However, these figures should not be interpreted as representative of the extent of violations among all covered establishments, since establishments are selected for inspection on the basis of complaints and other information indicating that violations will probably be found.

Restitution of $13,360,800 of illegally withheld wages was agreed to or ordered paid to 271,500 workers in 17,100 establishments during the fiscal year. Failure to pay the minimum wage was involved in more than one-fifth of these cases and restitution of such minimum wages affected about one-seventh of the workers found to be illegally underpaid in these establishments.

Since many establishments are covered under both Acts, it is impossible to give separate figures for restitution, which in many cases would be due under either Act. Of the 43,830 inspections completed during the year, 6,160 were made under the Public Contracts Act, all but 50 of which were concurrent with Wage-Hour inspection. Violations were found in 60 percent of the Public Contracts inspections, and 33 percent of such inspections disclosed violation of the minimum wage or overtime provisions.

Under the Fair Labor Standards Act, oppressive child labor means in general the employment of minors under the age of 16 in any occupation, or the employment of minors under the age of 18 in any occupation found and declared hazardous by the Secretary of Labor. The Secretary of Labor is empowered, however, to provide by regulation or order for the employment of minors between 14 and 16 years in non-manufacturing and non-mining occupations, under specified conditions. The child labor provisions of the Public Contracts Act provide that no boy under 16 or girl under 18 shall be employed on Government contracts in excess of $10,000. A former wartime exemption permitting employment of girls between 16 and 18 years of age under certain conditions has been revoked, so that under no circumstances may girls under 18 be employed on contracts awarded after September 4, 1945.

Violations of the child labor provisions of either or both Acts were found in approximately 6 percent of the total number of establishments inspected during the fiscal year. Of these, 2,300 violated the Fair Labor Standards Act by employing 8,466 minors in oppressive child labor. As a result of employing 3,163 minors in violation of the Public Contracts Act, 430 firms were assessed liquidated damages amounting to $563,470

The Divisions are also charged with the inspection of safety and health conditions in those plants holding public contracts.

During the year, proceedings for injunctions against future violations of the wage and hour provisions of the Fair Labor Standards Act were instituted in 281 cases, while the criminal penalties which the statute provides for cases of wilful violation were invoked in 126 cases. In an additional 45 cases, the Department of Justice authorized criminal prosecutions which had not yet been commenced at the close of the year. There were 136 injunction cases contested during the year, as compared with 106 contested the previous year.

Continuing a function assumed during the war, the Divisions in the past year participated in the

wage stabilization program as agents of the War Labor Board and its successor agency, the Wage Stabilization Board. The Divisions' chief undertakings for the Board consist in serving as a first point of contact for employees and employers in maintaining compliance with the Board's stabilization policy and in making inspection of employers' records to determine conformity with wage stabilization policies. Almost 22,000 inspections for the Board were completed during the last fiscal year.

In September 1945, President Truman requested Congress to review and amend the Fair Labor Standards Act and to extend coverage to large groups of workers denied its protection. The Administrator of the Divisions has also urged the enactment of a number of amendments which would enable the Act to provide higher standards of well-being for a greater number of workers. Among such measures, the Administrator has recommended raising the minimum hourly wage to 65 cents and in addition has advocated that inequities among employers in the same field and even among workers in the same plant be eliminated by extending coverage to include activities "affecting commerce." He also has proposed that the complex system of exemptions now available to agricultural processing and handling industries be readjusted to achieve uniform overtime standards in those industries and to assure all covered workers in those industries minimum wage protection. He further recommended that the minimum wage provisions of the Act be extended to cover seamen; that the child labor provisions of the Act be extended by prohibiting the employment of oppressive child labor in interstate commerce or in the production of goods for interstate commerce; and that recent moves in several States for unreasonably short statutes of limitation be countered by adding a reasonable statute of limitations to the Act for the protection of both employers and employees. Bills including such objectives among their provisions were introduced in Congress last year.

L. METCALFE WALLING.

WAKE ISLAND. An atoll consisting of three islets—Wilkes, Peale and Wake—which are separated by narrow shallow channels and enclose a triangular lagoon 4½ miles long. Total area: 4 square miles. Its location makes it valuable as a cable station between Hawaii and the Philippine Islands and between Midway and Guam. Wake lies 2,130 miles west of Honolulu and 1,185 miles west of Midway. Previously uninhabited until May, 1935, Wake Island became an air depot on the transpacific route of Pan American Airways. Construction of a U.S. naval air base and submarine base was begun on April 19, 1939, and these installations were partially completed at the time of the Japanese attack on December 8 (December 7 in the U.S.). On Dec. 23, 1941, the island was surrendered to overwhelming Japanese armed forces.

WAR DEPARTMENT. The Department of the United States Government which is charged with the responsibility of organizing, training, and maintaining the Army, and with certain non-military activities; created in 1789, succeeding a similar department which was established prior to the adoption of the Constitution.

Organization and Administrative Functions. The Secretary of War (Hon. Robert P. Patterson, September, 1945) is appointed by the President, who under the Constitution is Commander-in-Chief of the Army. The Secretary of War is the top authority in the Army and in the War Department, responsible only to the President. So far as the Army is concerned, the Secretary of War directly represents the President and is the instrument through whom command is exercised. Responsible for the execution of measures of the National Defense Act and for the protection of continental United States, the Secretary of War is charged with the maintenance and operation of all Army bases, harbor, and seacoast fortifications, the security of the Panama Canal, the improvement and development of Army equipment, and the management of Army affairs

The Under Secretary of War, who acts as Secretary of War during the incumbent's absence, establishes policies for the War Department's procurement of materials, exercises general supervision over industrial matters affecting the War Department—including industrial mobilization and demobilization—and coordinates these functions with other government agencies dealing with the use of manpower and the allocation of materials and of industrial facilities.

There are also an Assistant Secretary of War, charged with general administrative duties relating to the Army and the War Department, and an Assistant Secretary of War for Air, charged with the supervision of matters pertaining to the Army Air Forces.

Highest military authority, responsible only to the Secretary of War and to the President, and their principal adviser on the activities of the military establishment and the conduct of war, is the Chief of Staff (Gen. Dwight D Eisenhower, November, 1945). In command of all components of the Army of the United States, the Chief of Staff is responsible for their use in war and for plans and preparations insuring their readiness for war and their effectiveness in support of the foreign policy of the United States The Chief of Staff is head of the War Department General Staff.

General Staff. The General Staff is a closely coordinated group of officers constituting the principal advisers to the Chief of Staff. Under the postwar reorganization of the War Department and of the Army (effective June, 1946), the General Staff was set up in six divisions, each under a director, and the former designations of G-1, G-2, G-3, G-4 and Operations—together with the titles of Assistant Chiefs of Staff for the respective "G" divisions —were abolished. These divisions are:

(1) Personnel and Administration Division,
(2) Intelligence Division,
(3) Organization and Training Division,
(4) Service, Supply, and Procurement Division;
(5) Plans and Operations Division; and
(6) Research and Development Division.

WAR MOBILIZATION AND RECONVERSION, Office of (OWMR). The OWMR was established by Act of Congress (Public Law 458, 78th Congress, Second Session) October 3, 1944. Director of the Office is: John R. Steelman, (Alabama). Deputy Director for Production, Stabilization and War Liquidation: Harold Stein (Washington, D.C.). Deputy Director for Fiscal Policy, Employment, and Social Security: J. Donald Kingsley (Ohio). Anthony Hyde (New York), Deputy Director for Information and Reports. Aaron Lewittes (New York), General Counsel for OWMR and OES. Dr. George W. Taylor (Pennsylvania), Chairman, OWMR Advisory Board Address: East Wing, White House, Washington 25, D.C.

The law creating OWMR gave the agency responsibility to coordinate the mobilization of the United States for war and to plan for and guide its reconversion to peace. Congress gave the Director of Reconversion authority to:

(a) plan to meet the problems arising out of the transition from war to peace;
(b) issue orders and regulations to federal executive agencies to carry out reconversion plans;
(c) promote and assist in developing plans for demobilization and reconversion by executive agencies,
(d) settle controversies among them;
(e) recommend appropriate legislation to the Congress;
(f) determine the need to consolidate, simplify or eliminate emergency war agencies;
(g) determine the need to relax or remove emergency war controls,
(h) consult and cooperate with State and local government, industry, labor, agriculture and other national and local groups regarding reconversion problems;
(i) submit reports to the President, the Senate and the House of Representatives on the first days of January, April, July and October, on the activities undertaken or contemplated by him, summarizing and appraising activities of the executive agencies, and making proposals for passage of legislation.

The Act created an Advisory Board, to represent the public and the public interest, to include representatives of the public and others experienced in business management, agriculture and in labor matters. In 1946 members of the Board were:

Public Dr Taylor, Pennsylvania, Chairman; Mrs. Anna M Rosenberg, New York
Industry Eric A Johnston, Washington; George H. Mead, O , Nathaniel Dyke, Jr , Arkansas
Labor William L. Green, Ohio, AFL, Philip Murray, Pennsylvania, CIO, T C Cashen, New York, Railway Labor Executive Association.
Agriculture· Edward A O'Neal, Alabama, Farm Bureau Federation; James G. Patton, Colorado, National Farmers Union, Albert F. Goss, Washington, D C , National Grange.

Mr. Steelman, special assistant to the President of the United States, was appointed Director of War Mobilization and Reconversion on June 25, 1946. Previous directors were: Secretary of the Treasury John W. Snyder, July, 1945 to June, 1946; Chief Justice of the United States Fred M Vinson, April, 1945 to July, 1945; and Secretary of State James F. Byrnes, October, 1944 to April, 1945.

The functions and personnel of the Office of Economic Stabilization, established in the Office for Emergency Management by executive order on October 3, 1942, were transferred, also by executive order, to the OWMR July 25, 1946. On that date, Mr. Steelman was appointed Director of Economic Stabilization, in addition to his other duties.

The purpose of OES is: to control as far as possible inflationary developments which would hamper prosecution of the war or the operations of the domestic economy; and to formulate and develop national policy for the control of civilian purchasing power, prices, wages, rents, salaries, profits, rationing, subsidies, and related matters to avoid insofar as possible increases in the American cost of living.

Exercising its functions under the general supervision of the OWMR are:

(1) *The Office of Contract Settlement,* see separate article, CONTRACT SETTLEMENT, OFFICE OF.

(2) *The Appeal Board of OCS*—E. J Dimock (New York), Chairman. Address: Federal Reserve Building, Washington 25, D.C. This office hears appeals brought in accordance with the Contract Settlement Act of 1944.

The OWMR directed a nine-point federal interagency action program to aid American colleges and universities to house and educate 800,000 student veterans in the fall of 1946. Initiation of this program resulted in the appointment by the President of the National Commissioner of Higher Education to work out long range policies for higher education in the United States. The Director of Reconversion issued regulations October 5, 1946, by which non-profit educational institutions could obtain top priority to buy surplus classroom, laboratory and workshop equipment.

To reduce inflationary pressures in the reconverting economy the Director of Reconversion called for a $700 million cutback in federal expenditure for construction during the 1947 fiscal year. Federal agencies were directed to let no new contracts for a 56-day period. OWMR directed that construction contracts be let after October 1, 1946, only after projects had been subjected to a dual screening to establish their essentiality and nondeferrability.

During the year OWMR took many other actions to establish policies and develop programs for production, stabilization, fiscal policy, employment, and war liquidation.

On December 12, 1946, by executive order, OWMR together with the Office of Price Administration and the Civilian Production Administration was transferred into the Office of Temporary Controls. Major General Philip B. Fleming was named Temporary Controls Administrator. Harold Stein was appointed Commissioner for OWMR. At the same time, the OWMR Motion Picture Division and the OWMR Media Programming Division were transferred by executive order to the reconstituted Office of Government Reports. Directive powers which had been delegated to OWMR were retained by the President, who named John R. Steelman as his Special Assistant.

HAROLD STEIN.

WARM SPRINGS FOUNDATION. Located in Meriwether County, Georgia, the Foundation was started in 1927 by Franklin D. Roosevelt as a non-profit organization for the after-treatment of infantile paralysis.

It is financed primarily by grants from The National Foundation for Infantile Paralysis which conducts the annual March of Dimes. Basil O'Connor is president of the National Foundation and chairman of the executive committee of the Warm Springs Foundation. The center treats from 500 to 600 polio victims each year, always after the disease has passed the acute state. Dr. C. E. Irwin is chief surgeon.

The institution is on Pine Mountain, with grounds covering 500 acres at an altitude of 1,000 to 1,200 feet. Treatment pools are supplied by pure spring water.

No profit is derived from patients. About two-thirds pay none or only part of the cost of treatment. Others pay actual costs. No one is refused admission for lack of funds.

WAR RELIEF CONTROL BOARD, President's. During the war years 1939–1946, war relief abroad and in the United States was the enterprise of a wide variety of private organizations. The function of the President's War Relief Control Board, which was established by Executive Order July 25, 1942, was to coordinate these many efforts to meet war-created welfare and relief needs. This Order transferred from the State Department to the Board the administration of provisions of Section 8 of the Neutrality Act of 1939 relating to the solicitation and collection of funds and contributions for foreign relief. The Board was authorized to control not only American relief in belligerent countries, but also all the other war-relief activities, both domestic and foreign, except those of the American Red Cross, established religious bodies, or those confined to local areas.

The Board's review of the programs of organizations applying for war-relief licenses and its con-

tinuous examination of the certified reports and public audits of receipts and expenditures, required from agencies operating under its jurisdiction, were conducted with special attention to efficiency of administration. This surveillance resulted in reducing substantially the overhead costs of relief agencies, thereby saving for charitable purposes approximately 20 million dollars.

Consolidation of scattered local relief committees into effective national agencies and the merging of existing national organizations also received the primary attention of the Board. This effort resulted in a decrease of from 213 active agencies at the end of 1939 to 90 at the end of 1945.

In January 1943 the Board proposed a plan for establishing a National War Fund to collaborate with community chests in a united appeal for local charities and national war philanthropies. Proceeds of the Fund's campaigns financed many major foreign and domestic war-relief agencies until the close of 1946.

Another activity of the Board was the formation of the Council of Relief Agencies Licensed to Operate in Germany (CRALOG), a joint relief operation primarily of church relief agencies interested in aiding German civilians. At present 15 agencies jointly plan, ship, and distribute relief for Germany under the supervision of the various Allied military authorities. The success of this joint operation has led to the formation of a similar organization—Licensed Agencies for Relief in Asia (LARA) which has been authorized to handle relief supplies for Korea and Japan.

During the six-and-a-half year period from September 1939 through March 31, 1946, 596 agencies were registered for voluntary foreign war relief. These agencies collected in that time $597,621,366 for the relief of the war-stricken countries of the world. This figure added to what was collected for the welfare of the Armed Forces totaled over a billion dollars from voluntary sources.

CHARLES P. TAFT.

WATER SUPPLY AND PURIFICATION. The cost of water-supply improvements needed in 1946 in all U.S. communities of more than 200 population has been estimated by the U.S. Public Health Service at $2,190,000,000, as against $803,300,000 in 1944. But works in the planning or promotion stages represent $1,775,308,000 in the 1946 estimates. The same Service also issued in 1946 new standards for drinking water, superseding those of 1942, and accepted by the American Water Works Association as standards for all public water supplies. New factors in supply and consumption problems are the air-conditioning of buildings (including disposal of the cooling water) and the increasing use of water for heating rooms through circulating pipes embedded in the walls or floors. Still another factor in water consumption is the steadily increasing construction of municipal and private swimming pools. Much attention is being given to their safe and sanitary construction and operation, and the Illinois State Board of Health has issued a lengthy report on this subject. Decreasing supplies and increasing demands necessitate search for new and more distant sources of supply. Other troubles are the growth of algæ and weeds in reservoirs, and the growth of the water hyacinth and other vegetation in streams of the Southern states, requiring chemical and mechanical means for removal.

At the end of the war, the United States Army had nearly 1,000 water-supply systems serving troops in this country and a larger number abroad. They ranged in capacity from 500 to 5,000,000 gallons daily, and in design from improvised tanks for chlorination to rapid-sand filters of modern types. With its safe water supplies the Army had little trouble from water-borne diseases in tropical areas.

Municipal water-softening plants number about 710, of which 35 percent use the zeolite process. Los Angeles makes its own zeolite. Electrical softening processes are also being developed. Household softening plants number 130,000 in 750 communities. Chlorination is used mainly for bacteriological quality, but also to supplement other processes and to improve odor and taste. At Baltimore, it has been effective in the removal of excessive manganese and eliminating objectionable taste.

The U.S. Bureau of Reclamation has the largest construction program of its 43-year life, but like other Federal agencies it has been required to curtail activities not essential for the housing problem. In the comprehensive study of developments in the Missouri River basin, as approved by Congress, irrigation will be the field for the Bureau of Reclamation, while work for navigation and flood control will be under the Corps of Engineers, U.S. Army. In California, the State water-resources bill opposes Federal regional control of river basins, and favors return of the great Central Valley project to the State.

To meet the increasing water-service requirements of new housing, expanding population, new industries, and long-deferred repairs or maintenance, many cities and water companies are planning extensions and improvements. Thus, the Metropolitan Water District of Southern California plans to double the capacity of its water-softening plant San Diego and a group of nine surrounding communities desire annexation by the above District, from which their new supply of Colorado River water will be drawn through a 72-mile aqueduct. The hardness of this water will require sedimentation followed by softening and filtration. A Federal commission has been appointed to plan the financing of this aqueduct, which has been built by the Navy for its San Diego establishment, and which the city is under contract to purchase or lease. In Arizona, the supply of Phoenix from the Verde River is failing and a battery of wells, with a pipe-line to a reservoir, is recommended. Eventually there will be a supply from the Colorado River, but the aqueduct, including a 77-mile tunnel, has yet to be built.

An intake in Lake Erie, four miles from shore, is to bring a better water supply to Cleveland, Ohio. The new filtration plant at Chicago, to be the largest in the world, is still relying on sedimentation and chlorination, as lack of material prevents completion of the filters. St. Louis has a 5-year program of $20,000,000 for expansion of its supply and treatment system. After several years of study, Philadelphia has a project calling for the expenditure of $62,000,000 for rehabilitation of its works, and $284,000,000 for a new supply from the upper Delaware River. A company planning a water-supply and power project on the upper Delaware has proposed to serve Philadelphia and a group of New Jersey communities. For Washington, D.C., a comprehensive program spreads its $41,000,000 cost over a term of 50 years. Meanwhile, the flow of water in the nine-foot four-mile tunnel has been increased by installing screw pumps in the twelve-foot outlet shaft. At Baltimore, a salty contamination of the water is attributed to leakage of ground water into artesian wells not effectively sealed. Unless this can be checked, a new source of supply may be necessary. Water shortage at Santa Fe,

N.M., necessitated rationing, as the reservoir was almost dry, and a tank-car emergency supply was being considered when rains began.

In view of long droughts and increasing demands for water in the London area of England, the Metropolitan Water Board in July, urged the Ministry of Health to grant priorities of men and materials for carrying out the works of a 10-year program. But the Board's request to annex some thirty water companies and thirty-three local water boards within the area was rejected. Chlorination of water for the Greater Vancouver Water District, Canada, was discontinued in 1946, on the ground that the water is of good quality and that the government order of 1942 was based on an insufficient study of local conditions. In Central America and South America a number of water-supply and treatment plants are under construction with engineering and financial aid from the United States. See AQUEDUCTS, DAMS, SANITATION.

E. E. RUSSELL TRATMAN.

WATERWAYS, Inland. There has been but little important development in waterways or inland navigation, most of the recent work being in the way of maintenance or routine improvement, mainly under the direction of the Corps of Engineers, U.S. Army, which has authority over all navigable waters. Canals are relatively few, but a great arterial system of river navigation is formed by the Mississippi (St. Paul to the Gulf), the Ohio (now canalized), and the Illinois. This last stream connects the Great Lakes with the Mississippi and the Gulf. During the war, several vessels built on the Great Lakes were floated to salt water by this route. Since the war, ocean-going cargo steamers 260 ft long, built at Decatur, Alabama, have been sent to the Gulf by way of the Tennessee, the Ohio, and the Mississippi rivers. Congress has authorised the expenditure of $60,000,000 for beginning the construction of a 9-foot navigation channel through the Alabama and Coosa rivers from Mobile to Montgomery, and to Rome, Georgia.

A notable feature of the inland navigation system is the series of intracoastal waterways formed by dredging and connecting the series of lagoons and channels paralleling the coast line. The depth of water is usually 9 or 12 ft, sufficient for large barges which can thus navigate in smooth water. At present, the Atlantic waterway extends from New York harbor to the east side of Florida, and the Gulf waterway extends from the west side of Florida to Corpus Christi, Texas, and eventually to the Rio Grande. Surveys are being made for a barge canal across Florida to connect these two main waterways. A branch is proposed from the Gulf waterway at Morgan City, La., 50 miles north to the Mississippi at Baton Rouge. A similar waterway is projected through Puget Sound and on to Alaska.

Its cost was estimated at that time as $409,340,000, but in February, 1946, the U.S. Engineers estimated it at $455,056,000. Since then the trend of cost of public works has been rapidly ascending, and has been estimated to be from 35 to 50 percent above original estimates. Another objection is that the proposed draft of 27 feet is too shallow for modern ocean-going vessels.

In Canada, no major improvements to the government canals are planned, but a private concern has been permitted to put in operation on the Welland ship canal a dry-dock capable of handling the largest ships on the Great Lakes. On Lake Temagami, in Ontario, a shallow-draft, self-propelling, landing-craft barge is in ferry service.

The war-wrecked and blockaded canals and rivers of France, Belgium, and the Netherlands were almost completely reopened to navigation by July, 1946, as reported by the Central Inland Transportation commission. The work included removal of mines, wrecked bridges, and sunken ships, and the dredging of sand bars formed at the various obstructions. An American dredge was used for this work on the Rhone. In some cases the channels have been enlarged to carry barges of 1,000- or 1,500-ton capacity, in place of the original 300-ton barges.

E. E. RUSSELL TRATMAN.

WEATHER BUREAU. The year 1946 marked the resumption and expansion of peacetime Weather Bureau public services, which were provided in larger amount and more intensive form than before. The number of full-time Weather Bureau stations decreased slightly, and much weather observing and reporting work by military agencies was discontinued. A heavier workload was accordingly placed on the remaining 413 full-time Weather Bureau stations. Counterbalancing this to some extent, the demobilization of veterans well-trained in meteorology provided the Bureau with new personnel of a professional caliber not heretofore available on such a large scale. A more detailed account of the Bureau's 1946 weather services, and discussions of some noteworthy advances in instruments, research, climatological and hydrologic activities, are given below.

Weather Services. Without increase in total employee-time for meeting the needs of the general public, the Weather Bureau handled a 28 percent increase over 1944–1945 in direct requests for weather advice. A greater number of people availed themselves of the automatic telephone weather-forecasting service. In addition to newspaper outlets, more than 600 commercial stations broadcast weather news; approximately 100 of them maintained their own microphones in Weather Bureau offices for direct use by the Bureau's meteorologists in disseminating weather information.

The growth of trans-Atlantic aviation was reflected in the steps taken to establish weather stations in the Arctic, north of latitudes from which reports had been previously received. This project will permit more accurate forecasting of flight conditions over the North Atlantic. Special trans-oceanic aviation-forecasting units were maintained at New York, Baltimore, Washington, and Miami. At 15 district forecasting centers in the United States, the basic weather forecasts for airway routes and terminals were prepared. In addition, 26 Flight Advisory Weather Service units provided a specialized type of airway weather information.

During the hurricane season, the several hurricane forecast centers on the Gulf and Atlantic coasts were charged with the primary responsibility for issuing warnings as necessary. These warnings were disseminated by a large network of Weather Bureau stations. More than $80,000,000 property damage was caused by three severe hurricanes which struck the coastline of the United States. Only seven lives, however, were lost—the lowest mortality rate in the history of the hurricane-warning service. The fruit-frost, fire-weather, shippers' forecasts, farm operational advices, etc. continued their various specialized services to agricultural, commercial, and business interests.

Instruments and Research. Wartime developments, centering around the application of radar and other electronic equipment to weather observations, were extended on an enlarged scale to the national

weather service. These developments include the Weather Bureau's ceilometer, an instrument which permits more accurate measurement of ceiling height, day or night; and apparatus for the better determination of the speed and direction of the upper winds, which together with the utilization of radar to detect showers, thunderstorms, squall lines, etc., as an aid in local short-term forecasting, was pioneered by the Army and Navy.

At a test area near Orlando, Florida, the Weather Bureau cooperated in a research project on thunderstorms, in which a tightly-knit ground network and a well-instrumented aircraft observation system were combined to explore the meteorological conditions associated with one of aviation's greatest hazards. Research was also conducted on forecast techniques looking to objective methods for the betterment of short range forecasts of several weather elements In the field of extended forecasting, the Weather Bureau's 5-day forecasting section and the Massachusetts Institute of Technology conducted joint studies of atmospheric circulation patterns in relation to the weather to be expected 5 days to a month ahead. The Weather Bureau also cooperated in investigations into other atmospheric problems carried on at several universities.

Climatology and Hydrology. A program, begun during 1946 in several southern states, will eventually be extended to Weather Bureau stations throughout the country. This program is the machine tabulation of weather observations, which not only is more economical of time than the manual methods previously used, but also allows a more complete analysis of the data. This program points the way to future integration of heretofore unconsidered climatic factors with standard planning in a host of public activities.

The Bureau's hydrologic services, consolidated as of July 1, 1946 with the Climatological division, were devoted to the development of seasonal forecasts of the water supply for several river basins, the determination of flood forecasting techniques for a number of streams, and the preparation of some 73 storm studies The flood-warning service saved at least $4,000,000.00 in damage, and cooperative projects on reclamation and flood control were also conducted in association with other Government agencies.

F. W. REICHELDERFER.

WHITE HOUSE OFFICE. A division of the Executive Office of the President, which serves the President in the performance of detailed activities incident to his office. The officials include three Secretaries, Matthew J. Connelly, Charles G Ross, William D. Hassett; two Administrative Assistants (personal aides), David K. Niles and Raymond R. Zimmerman; Special Counsel, Clark M. Clifford. Special Assistants, John R. Steelman and Edwin A Locke, Jr.; Special Executive Assistant, George J Schoeneman; Social Secretary, Reathel M. Odum; Executive Clerk, William J. Hopkins.

WOMEN'S BUREAU. A bureau in the U.S Department of Labor created by Congress in 1920 to "formulate standards and policies which shall promote the welfare of wage-earning women, improve their working conditions, increase their efficiency, and advance their opportunities for profitable employment."

The main business during 1946 was to assist women workers, and all who are concerned with their problems, in readjustment from a wartime to a peacetime economy. The Bureau was especially concerned that discriminatory practices not be used to bar women from employment or to force them into substandard jobs.

Research. In 1944 and 1945 the Bureau had conducted interviews with over 13,000 women war workers to study their status then and to determine their postwar plans. A bulletin summarizing the findings was published this year, as "Women Workers in Ten War Production Areas and Their Postwar Employment Plans."

In 1946 the Bureau began a follow-up investigation in Baltimore to locate the women formerly employed in war industries and interviewed in that city, and to obtain information on their work histories since then. The Baltimore sample will include a cross-section of women by race, marital status, age, and work experience. The facts gathered are expected to indicate the employment and economic problems of displaced war workers and the adjustments required of them.

Another study of women workers after V-J Day was begun in Bridgeport, Conn. The survey was undertaken, at the request of the Community Advisory Service Center and YWCA of Bridgeport, to investigate the employment needs of local women workers and to help formulate a community program to meet these needs

Labor Legislation. The Bureau's work in connection with labor legislation was continued throughout the year. A bulletin explaining and analyzing State labor laws for women was published This was the fifth and final bulletin in a series entitled, "State Labor Laws for Women with Wartime Modifications." The preceding four had been summaries in legal-chart form of the laws of each State. Supplements were issued to the Bureau's 1942 bulletin containing digests of all State minimum-wage laws and orders, bringing this material up to date through October 15, 1946. A cumulative supplement to the report, "Legal Status of Women in the United States," was completed, covering significant legislation pertinent to the political and civil status of women enacted 1938–1945.

In March, the Bureau's 12th Annual Minimum Wage Conference was held. The first such minimum-wage conference since the first year of the war, it was called at the urgent request of State minimum-wage administrators Representatives from 9 States with existing minimum-wage laws, the District of Columbia, and Puerto Rico met to discuss standards and methods for strengthening and improving minimum-wage administration and enforcement, as well as to report on current progress and to exchange experiences in dealing with special problems

International Cooperation. The Bureau's program of cooperation with other countries, carried on under auspices of the U S State Department, included extensive work with other American republics. Training programs for five women labor officials from South American countries, and also for women from China, Lebanon, and Puerto Rico, were completed during the year Early in 1946 the chief of the International Division visited Mexico at the invitation of the Mexican Department of Labor. While there she delivered a series of lectures and visited factories and institutions. When the Inter-American Commission of Women met in Washington, D C , in December 1946, the Bureau's International Division chief represented the United States

In January and February, the Bureau's Director served as an adviser to the U.S. delegation to the first General Assembly of the United Nations in London. She served in an official capacity on a

committee to revise the Constitution of the International Labor Organization, and at the 98th and 99th sessions of the Governing Body of the ILO, the 29th session of the International Labor Conference, and a meeting of the ILO Committee on Women's Work.

FRIEDA S. MILLER.

YACHTING. Many skippers broke out sails in 1946 for the first time since prewar days and the colorful sport of yachting enjoyed a real boom. Perhaps the highlight on a log that fairly bulged with competitive events was the Newport to Bermuda thrash of 635 miles, won by the 57-foot sloop *Gesture* owned by A. H. Fuller of New London, Conn. Lone sad note of the classic, last held in 1938 and always filled with adventure, was the sinking of the *Zena*, Bermuda's only entry in a field of 45 sea-going craft. The *Zena* went under—although all hands were saved—when she was rammed while enroute to Newport's starting line.

Another international test was the world Star Class championship at Havana. Competing in a fleet that included entries from the United States, Havana, South America, Europe, and Hawaii, George Fleitz, with Walter Krug as crew, sailed the *Wench II* of Los Angeles to victory in the seven-race regatta.

Larchmont challengers for the Amorita Cup, held by the Royal Bermuda Yacht Club, visited Hamilton for a best-of-seven series, but returned home without the prize when the Bermuda sailors won by 4 to 2 *Away*, 45-foot sloop owned by H. N. Davock of Birmingham, Michigan, took Class A honors in the thirteenth St. Petersburg-Havana race. However, on corrected time, the *Den-E-Von*, 40-foot cutter skippered by W. A. Denny of St. Petersburg, took fleet honors and the Class B award.

All the big regattas, overnight races, and cruises of yesteryear were revived, with the result that racing waterways were dotted with picturesque craft from early spring until late fall. On Long Island sound alone, twenty-four championships were run by member clubs and drew 2,503 craft—839 more than the previous year. Sound champions for the year follow. International—*Feather*, J L Merrill; Class S—*Kandahar*, P. S. Patton; Atlantic—*Whim*, Miss Aileen Shields; Star—*Bolt*, Romeyn Everdell; Victory—*Stormy*, George W. May; Lightning—*Rogue*, Jack Webb; Comet—*Hal*, E and E. Halahan; One-Ten—*Hurricane*, H. G. Herbert; Snipe—*Skipper*, Miss Donna Sandkam; Handicap, Division IV—*Tidsfordriv*, Richard Sheehan; Handicap, Division VI—*Toughie*, Theodore Koepper, Handicap, Division VII—*Patricia*, G. J. Bienstock.

Larchmont Race Week proved the big event of the year, with 295 craft checking over the line for a total of 1,674 starts, not including the 166 that competed on junior day.

International Snipe honors were won by Bob Davis of Balboa, California, and national Lightning laurels went to Walt Swindeman of Toledo. Bill Maclay of Chatham annexed the United States junior title and Bill Weatherly of the Pasquotank River Y.C. was first in the boys' national regatta. The Edgartown Yacht Club captured the United States women's championship and the Mrs. Charles Francis Adams trophy Mrs. Virginia Weston Besse was skipper of the winning crew. Massachusetts Institute of Technology carried off the McMillan Cup, symbolic of national intercollegiate supremacy.

THOMAS V. HANEY.

YAP. An island cluster in the western Caroline group of the Japanese Pacific Islands (q.v.); surrendered by Japan to Allied armed forces in 1945. It comprises three main islands within a lagoon formed by an outer band of islets. Area, 83 square miles. Population (1938), 6,939 (5,811 natives, 1,119 Japanese, and 9 others). On November 6, 1946, the United States requested that the island be placed under United Nations trusteeship with the United States as administering authority.

YUGOSLAVIA. A Balkan republic (proclaimed Nov. 29, 1945, and recognized by Great Britain and the United States on Dec. 22, 1945), formerly a kingdom. Area: 95,753 square miles. Population (Jan. 1, 1941, estimate): 15,920,000 (13,934,000 at the 1931 census). Chief cities (with 1931 census figures): Belgrade (capital) 266,849, Zagreb 185,581, Subotica 100,058, Ljubljana 79,056, Sarajevo 78,173, Skoplje 64,737, Novi Sad 63,985.

Government. The Constitution of Sept. 3, 1931, proclaimed Yugoslavia a hereditary, constitutional monarchy. It vested executive power in the King, acting through a Ministry appointed by him and not responsible to Parliament. Legislative power was shared by the King and Parliament. There was a Senate of 84 members, half elected and half appointed by the Crown for terms of six years. The Lower Chamber (Skupshtina) of 371 elective members was dissolved Aug 26, 1939, and new elections were held in November 1945. The Constituent Assembly meeting in Belgrade on Nov. 29, 1945, proclaimed Yugoslavia a republic. Premier: Marshal Josip Broz (Tito).

Events. In the course of the year Yugoslavia regularized its regime by the adoption of a new constitution, and consolidated its strength internally by further social measures and steps against opposition groups and the Catholic Church. Internationally it followed and was supported by Soviet policy, so that it became in effect the Soviets' westernmost outpost against the western Allies in southern Europe. The principal international issue was the disposition of Venezia Giulia and the city of Trieste. Friction was exacerbated by Yugoslav attacks on American aircraft and by Greek charges that the "communist" bands which operated in northern Greece after the restoration of the Greek King in September were receiving Yugoslav support.

The new Yugoslav constitution received formal approval at a plenary session of the Constituent Assembly on January 31, 1946. Legal sanction was given to existing administrative, social and economic structures. In its fundamental principles, in definitions of national sovereignty and of legislative, judicial, and executive authority, and in its provisions for the administrative organization of the country the constitution was closely patterned after the Soviet constitution of 1936. The concept of federalism was similar to that in the U.S.S.R. The federal components enjoyed autonomy in local matters, but foreign affairs, defense, transportation, postal services, and trade were put under the control of a federal State Planning Commission. The federal authority was strengthened rather than curtailed. The national commissions were not to be considered the "political basis of state authority" but rather government agencies completely controlled from above. Financial matters were centralized, and supreme economic authority was vested in a federal agency, with the status of a ministry. The constitution provided that "private property can be limited or expropriated in favor of common interests," and that "under no conditions can large landed estates be privately owned." There were numerous provisions to guarantee freedom of press, speech, and assembly, the inviola-

bility of the home, and the right of habeas corpus. Immediately after the constitution was ratified the Constituent Assembly dissolved itself and reconvened as the National Assembly. Tito submitted the resignation of the cabinet, and was entrusted with the formation of a new Government. The Government sworn in on February 1 was as follows: President and Minister of National Defense, Josip Broz Tito; First Vice-President, Edvard Kardely; Second Vice-President, Yasha Prodanovich; Foreign Affairs, Stanoye Simich; Interior, General Alexander Rankovich; Public Works, Vlado Zechevich; Merchant Marine, Ante Vrklyan; Foreign Trade, Nikola Petrovich; Information, Sava Kosanovich; Communications, Drago Marushich; Transport, Todor Vuyasinovich; Industry, Andriya Hebrang; Mining, Bane Andryev; Agriculture, Vaso Chubrilovich; Finance, Sreten Zhuyovich; Trade and Supplies, Zaim Sharats; Labor, Vitsko Krstulovich; Without Portfolio, Milovan Djilas, Dimitar Nestorov, and Kirilo Savich. Ethnically the Government included eleven Serbs, four Croats, two Slovenes, two Macedonians, and one Bosnian Moslem. The representation of the component national republics was as follows: Serbia, seven; Croatia, five, Bosnia-Hercegovina, three; Slovenia, two; Macedonia, two; Montenegro, one. The representation of political parties was Communist, eleven; Croat Republican Peasant Party, two; pro-Liberation Front Democratic and Agricultural Parties, one each; pro-Liberation Front Independent Democrats, two; Republican Party, one; identified with no party, three. Also included in the Government, but without ministerial portfolios were the presidents of the Federal Planning Commission, of the Federal Control Commission, of the Committee for Higher Education, of the Commission for Public Health, and of the Commission for Public Welfare. Very soon the communist inner circle emerged as the real rulers of the country: Tito, Kardely, Hebrang, Rankovich, Zhuyovich, Mosha Piyade, and Milovan Djilas.

The Government manifested its determination to make Yugoslavia politically monolithic. Milan Grol, who had resigned from the Government in protest at Tito's authoritarian methods, was virtually kept prisoner in his home. His *Demokratiya*, the only surviving opposition newspaper, was closed, and a number of its contributors and other Democrats were interned. Separation of Church and state deprived the Church of its percentage of communal taxes, the clergy of Government salaries, the twenty-four theological seminaries of Government support. Agricultural reforms took 27,000 acres of Church land, and the Church was reduced to dependence upon voluntary offerings. Civil marriage was authorized. Bishop Joseph, acting head of the Church, acquiesced in the separation but declared he would fight for "freedom of religion," specifically, against interference in ritual, education, or property. The dominant position of labor was reinforced by Tito's declaration that the "trade unions are the guardians of the state." Government measures for a planned economy and a stabilized dinar were only partially successful, early in the year production was reported to lag, and low Government-fixed prices directed products from the open to the black market.

The temper of the Government was made plain, and foreign criticism aroused, by two significant trials and convictions. On March 13 the Chetnik General, Draja Mihailovich, was captured. On June 6 he was placed on trial on the charge of collaborating with the enemy; he was found guilty on July 16, and executed the following day. Informed neutral opinion was convinced of Mihailovich's guilt, but the trial itself appeared not to have been fairly conducted, and it was thought that Mihailovich's earlier services to the Allied cause might have been considered an extenuating circumstance to mitigate the penalty. In the United States the "Committee for a Fair Trial for Draja Mihailovich," which included a number of prominent Americans, aroused suspicion of the Yugoslav Government's good faith and petitioned the Secretary of State to demand that Mihailovich be turned over to an international tribunal for trial. Since Mihailovich was a Yugoslav subject charged with treason against his own Government such a step seemed infeasible. The State Department did request, but in vain, that American officers who had been saved by Mihailovich be permitted to testify on his behalf. The second trial was that of Archbishop Aloysius Stepinac, Roman Catholic primate of Yugoslavia, who was indicted on a similar charge on September 23 and sentenced to life imprisonment on October 11. Again informed neutral opinion was convinced that the Archbishop was guilty as charged; even the Great Serb group in America, which had been violently opposed to Tito and his regime and had defended Mihailovich, accused the Archbishop of responsibility for brutalities committed in connection with Roman Catholic efforts to convert Orthodox Yugoslavs. But the proceedings evoked unfavorable criticism abroad, the Catholic Church in particular, and particularly in America, vigorously espousing the position that the trial was a flagrant miscarriage of justice and a step in communism's avowed and relentless campaign against religion.

American indignation was virtually universal and official representations took a very serious tone as result of a number of incidents involving American aircraft. Early in August the occupants of a grounded American C-47, which had been en route from Austria to Italy, were arrested by the Yugoslav authorities, who charged that their territory had been violated. On August 18 an American plane was fired upon, and on August 19 another was shot down and its occupants killed. In response to the strong American protest of August 22, which demanded satisfaction on pain of severance of relations, the Yugoslav Government agreed, on September 10, to pay indemnities and avoid repetition of similar incidents. On November 12 Yugoslavia demanded indemnities of more than $6,750,000 as compensation for losses incurred as a result of detention of Yugoslav shipping on the Danube by American authorities. On the first anniversary of UNRRA operations in Yugoslavia in March Tito expressed formal thanks to that organization. Distribution of UNRRA supplies was reported to be honest, none going to the black market, but UNRRA assistance undoubtedly aided the Government program. Yugoslav relations with Great Britain were also strained. The Yugoslav press supported Andrei Vishinsky's attack on British policy in Indonesia and Greece in the Security Council meetings in London in January. Through the Russian delegation to the Security Council Yugoslavia protested against the projected advance of General Anders' Polish troops towards Yugoslav territory. Yugoslav officials announced their intention to expropriate the British owned Trepca lead and zinc mines, along with the Bor copper mines, which the French owners had sold to the Germans. But relations between the two Governments continued correct. A Yugoslav trade delegation was received in England, and British representatives abroad were instructed to discontinue relations with political or military adherents of King Peter.

More vexatious and more pregnant with danger for the future peace of Europe was the question of Venezia Giulia and Trieste. The Council of Foreign Ministers meeting in London in September 1945 appointed a joint committee to investigate the localities under dispute and explore the question of a permanent boundary. It was stipulated that the boundary eventually to be recommended was to be "in the main . . . the ethnic lines, leaving a minimum under alien rule," though important economic and geographic considerations must be noticed; and the committee was to "report on an international regime which will assure that port and transit facilities of Trieste will be available for use on equal terms by all international trade and by Yugoslavia, Italy, and the states of Central Europe as is customary in other free ports of the world." On March 27 the Yugoslav Ministry of Foreign Affairs handed notes to the British and American representatives in Belgrade complaining that the Allied Military Government in the disputed areas had reintroduced the legal system and other abuses of the Fascist regime. The note demanded that (a) the civil police be dissolved; (b) Italian fascists be expelled from Zone A, Yugoslav collaborators sheltered there be interned, and Yugoslav war criminals be delivered for trial; (c) free elections be carried out; and (d) Slovene schools be reopened. On the arrival of the allied commission of inquiry Yugoslav propaganda was heightened. The Allied Military Government was called a "stronghold of fascism," and Zone A was declared to be still in need of liberation. If internationalized, the Yugoslavs said, the area would become a "center of war criminals, spies, international adventurers, provocateurs, and robbers"—in other words, a focus for refugees who might seek to overthrow the Tito regime. It was charged that such refugees were in fact active on Austrian territory. Tension subsided when the commission left for London on April 5, but June saw a new wave of pro-Yugoslav propaganda in Trieste. The local communists had apparently decided to abandon their policy of "cooperation" with the Allied Military Government and to create incidents which would demonstrate the inability of that Government to maintain order. At the Council of Foreign Ministers meeting in New York during November discussions concerning the statute of Trieste, which involved disputes regarding the powers of the governor, the allegiance of the police director, the date of withdrawal of Allied troops, and kindred matters, were brought to a conclusion on November 27. Allied troops would be reduced at once and withdrawal three months after the governor took office if conditions permitted, and elections to a council would be held a month later. Boundaries with Italy, as with Austria, awaited the conclusion of peace treaties.

At the end of the year relations with Greece had gravely deteriorated. Soon after the (royalist) Popular Party Government came into power as result of the elections of March 31, its Governor of Western Macedonia charged that Yugoslavia was waging undeclared war against Greece by aiding subversive elements in Greece. As a result of the consequent tension Yugoslavia recalled its ambassador from Athens. In June a Greek Spitfire plane was forced down in Yugoslav territory. Yugoslavia naturally gave Albania full sympathy in denouncing insistent Greek claims to Southern Albania. Greek charges of Yugoslav hostility grew more serious at the end of November. Greek Government forces found themselves unable to control "communist" bands in northern Greece, and openly charged that these bands were being provisioned and directed from Yugoslavia. The Yugoslavs protested that Greek planes repeatedly violated their territory, and when, on November 25, the Greek Government rejected the Yugoslav protest, *Borba*, the Communist Party organ in Belgrade, foretold that Yugoslavia would sever diplomatic relations The Greek Minister of War, Philip Dragoumis, was quoted as confidently expecting not only British but also American military aid. Yugoslavia's Greek, like its other, foreign relations, appeared to be an aspect of the rivalry between Anglo-American and Russian interests, likely to improve or deteriorate as relations between the great powers improved or deteriorated.

Religion and Education. According to the 1931 census, members of the Serbian Orthodox Church comprised 48.7 percent of the total population, Roman Catholics 37.45, Moslems 11.2, Protestants 1.66, Jews 0.49, and Greek Catholics 0.32 percent. Education (1938–39): 1,474,224 students in elementary schools, 177,034 students in secondary schools, and 16,969 students in the universities.

Production. Agriculture, in normal times, was the occupation of 80 percent of the people, and about 80 percent of the cultivated area was devoted to cereals. Minerals produced include coal, iron, copper, gold, lead, chrome, antimony, and cement. There were 3,054 industrial enterprises in 1938 and their employees numbered about 400,000 in 1940. Leading industries included timber, textiles, milling, tanning, cement, leather goods, chemicals, steel, brewing, and sugar refining.

Foreign Trade. The value of merchandise imports in 1940 was 6,019,000,000 dinars; exports, 6,680,-400,000 dinars.

Finance. Budget expenditure authorized for the 1940–41 fiscal year (ended March 31) was 14,-708,200,000 dinars, as against actual expenditures of 12,327,900,000 dinars in 1939–40. Public debt on Mar. 31, 1939, 24,620,000,000 dinars (internal, 12,620,000,000, external, 12,000,000,000). On Mar. 31, 1941, currency in circulation totaled 15,281 million dinars. The average exchange rate of the dinar was $0.0227 in 1939, $0.0225 in 1940.

Transportation. There were 6,591 miles of railway in 1939 (6,000 miles operated by the state). Highways extended 26,534 miles. The Danube and other rivers are important traffic arteries.

MOSES HADAS.

ZANZIBAR. A British protectorate in East Africa, comprising the islands of Zanzibar (640 square miles) and Pemba (380 square miles). Total area, 1,020 square miles. The islands lie south of the equator, with Zanzibar about 23 miles from the African coast at the nearest point. Population (1931 census): Zanzibar, 150,000. Pemba, 100,000. Capital, Zanzibar (50,000). The protectorate is administered by a British resident, who presides over the legislative council of 15 members. Sultan Seyyid Sir Khalifa bin Harub presides over the executive council.

Production and Trade. Cloves, the most important industry of the islands, occupies about 48,000 acres. Coconut production is second in importance. The chief exports in 1944 were cloves (£444,364) and copra (£249,352). Cotton goods, rice, and grain were the chief articles of import.

ZINC. Disturbed labor and market conditions restricted the mining and smelting of zinc during 1946 with some consequent disruption of zinc-consuming industries. These artificial factors, rather than absolute shortages, caused interruptions in the flow of metal to industry during the year.

Almost coincident with the summer labor difficulties, expiration on June 30 of the government's Premium Price Plan, by which mines are paid a bonus for otherwise unprofitable production, caused many mines to cease production until the plan's reinstatement on July 26. During the same period, Office of Price Administration price ceilings were suspended, and the price of Prime Western zinc advanced from the former ceiling of 8.25 cents per pound, East St. Louis, to 9.5 cents per pound. When the former 8.25 cents ceiling was reimposed July 26, trading came to a virtual standstill in the expectation that it would be raised. Converters were unwilling to market at ceiling prices secondary metal produced from high cost scrap purchased during the OPA interim. On October 14, OPA raised the price one cent. Following decontrol of zinc prices November 11 producers immediately raised prices to the world market level. Prime Western zinc was sold at 10.50 cents per pound, East St. Louis

As with copper and lead, the United States government purchased from foreign sources sufficient zinc to piece out domestic supplies. Because of heavy competition from other countries for available world supplies it was necessary for the government to pay as much as two cents per pound above the domestic ceiling on foreign purchases, with resale made to consumers at the ceiling price. During the latter part of the year the Office of Metals Reserve discontinued the purchase of foreign slab zinc, and authorized the export at world prices of zinc smelted domestically from foreign ores. Total imports consisted of approximately 275,000 tons of zinc in ore shipped to United States smelters, largely from Mexico, Canada, Bolivia and Argentine; and about 103,000 tons of slab zinc, about three-quarters of it from Canada.

Despite interruptions discussed above, domestic mines produced ore containing approximately 565,787 tons of zinc (1945: revised: 614,344 tons). Idaho maintained its position as the largest producing state, and despite a period of sharply reduced activity during the summer price uncertainty the Tri-State district (Missouri-Kansas-Oklahoma) was the largest producing district.

Total domestic production of primary slab zinc was about 759,212 tons, from both foreign and domestic ores, during the year.

CHARLES T. POST.

ZIONISM. Such are the birth-pains of the Jewish national restoration in the ancient land of Israel that fifty years after Dr. Theodore Herzl convened the first international Zionist Congress in Basle, Switzerland, in 1897, and twenty-nine years after the British Government issued the celebrated Balfour Declaration pledging "to facilitate the establishment of the Jewish national home in Palestine" the Jews in Palestine are still struggling for that freedom and independence which they sought through years of wanderings and travail. World War II, like World War I, seriously interrupted the work of the Zionists as it impeded all constructive tasks of the Jewish community, but at the end of the more recent world conflict there was urgent need for a center, not alone for the Jewish soul, but for a home and a haven of refuge for those whose communities were demolished by the war and whose homes were left in the ruins of the devastated areas. As a matter of belated justice to a long suffering people the spirit and intent of the Balfour Declaration of 1917 had the official endorsement of fifty-two nations of the world.

Contrary to its repeated previous declarations, however, the British Labor Party on its assumption of power in England veered from its early pro-Zionist position to an attitude which like that of the other political parties was more sensitive to the antagonism of the Arabs in Palestine than to the solemn obligation of their government to fulfill early pledges. To President Truman's request for 100,000 immigration certificates for homeless Jews the British Government answered with a proposal for the setting up of a joint Anglo-American Committee of Inquiry to examine the Palestine problem. The President acceded to the proposal but reiterated his adherence to his wish for the admission of the refugees in behalf of whom he had pleaded. Though the positive recommendations of this Committee favored the early admission of homeless Jews, the negative recommendations relating to the future of Palestine led to the appointment of another committee and to further protracted correspondence and negotiations, all of which delayed the entrance of the most needy homeless persons into Palestine. Meanwhile, the resistance movement of the Yishuv or Jewish settlement assumed sharp aspects and protest against the British administration, with extremists resorting to violence which the moderate and recognized organizations could no longer control. The Haganah or unofficial military guard which, during the war, assisted in the British war effort and had the sanction of the British military authorities, continued to assist in the entrance of immigrants. These immigrants, without proper certificates, and at the risk of their lives, sailed in all manner of unseaworthy vessels, and the leaders of the resistance movement and all Palestine Jews in general, in view of early political pledges, ignored the cry, "illegal," in the matter of such immigration of Jews into their own homeland.

Out of the second Anglo-American study group, called the "Cabinet Committee," came a plan for the setting up of three provinces in Palestine, one for the Jews, the second for the Arabs, and the third as a British possession to be predominant in the whole area The supreme Jewish body, the Jewish Agency for Palestine, countered this plan with an alternate proposal of a "viable Jewish State in an adequate territory" in Judea, this being offered as a basis of discussion before the Jewish-Arab Conference in London planned earlier by the British government, the sessions of which were postponed until the beginning of 1947.

BERNARD G. RICHARDS.

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